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TRANSACTIONS

OF THE

North Carolina State Dental Society,

AT THE

TWENTY-FIFTH ANNUAL SESSION,

HELD AT

RALEIGH, N. C.,

COMMENCING MAY 3D, 1899.

PUBLISHING COMMITTEE:

J. M. FLEMING. E. K. WRIGHT. J. M. PARKER.

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PROCEEDINGS.

RALEIGH, N. C., May 3, 1899.

The Twenty-fifth Annual Meeting of the North Carolina State Dental Society was called to order at 11 o'clock A. M., in the Senate Chamber, by the President, Dr. C. W. Banner, of Mount Airy, N. C., and the meeting was opened with prayer by the Rev. Dr. M. M. Marshall, rector of Christ Episcopal Church.

The address of welcome was delivered by Dr. V. E. Turner, as follows:

ADDRESS.

Mr. President and Gentlemen of the Society:

In behalf of the dentists of Raleigh, it is my pleasure to extend to you, one and all, a most cordial welcome. I am not unmindful of the fact that you gentlemen have been listening to addresses of welcome for many years and in many places, and it would be very difficult to use expressions which are not, to some extent, familiar and perhaps monotonous. Like the fellow who was spending the evening with his best girl, and, during a long pause in the conversation, says: "I say, Sall, how is the old mother? Not that I give a d—— how the old lady is, but it makes talk, you know." It is not our object to "make talk," but simply to give assurance that we have great respect and admiration for the organized workers and thinkers of this Society.

It gives me great pleasure to have as our guests gentlemen who are in full sympathy with us in all that pertains to a conscientious discharge of our professional duties. Coming from the various sections of the State, as you all have, you are the representative men in North Carolina of the profession, and as such you are here for the purpose of elevating the standard of professional attainments, and to gain knowledge and equipment for the relief of human suffering by every possible means. The brilliant achievements that have marked the history of dental surgery for the last few years are due in part and mostly to such associated efforts as these; in fact, the high position which our profession occupies to-day is due more to these associated efforts than anything else. Dental surgery is no longer a mere handicraft, depending entirely upon dexterous

manipulation. It has succeeded to a position of greater dignity and higher intelligence, and it requires for itself successful prosecution, with educational preparation and broad culture, which is necessary to adopt or study any of the learned professions. And so that, while we have made great progress in the last twenty years, there is still much to be done; and I feel that progress will be made at this meeting under the leadership of your well-chosen Banner. This is your capital city as well as our home, and we feel that there would be much to interest you if you feel, as a good citizen should feel, some interest in the progress in the State government and in the progress of your capital city. We have tried very hard to keep in the line of progress, and we think we have kept up very well for a city of this size. We do not feel quite as gallant as the eminent English statesman, for whom this city was named, who threw his cloak on the ground that the Queen should not soil her slippers; but we think that we have done better: we have put down brick and stone, which we think more permanent and more sensible.

There has been some complaint lately about the water supply, not that it is not abundant for ordinary purposes, but a question has been raised as to its qualities for drinking purposes. Some of our citizens have found out that there is a substitute which will answer every purpose. If any of you gentlemen feel skeptical upon this subject, I will see if we cannot put you on to it. I want to say, though, that Raleigh is a dry town after 11 o'clock at night.

We are certainly very glad to have you gentlemen here, and trust that your meeting will be as pleasant as I know it will be profitable.

The response was delivered by Dr. C. A. Rominger, of Reidsville, as follows:

RESPONSE.

Mr. President and Members of the Society:

It is with a feeling of some pride and pleasure that I stand here to-day as the representative of my professional brethren to respond to the well-chosen address to which we have just listened, welcoming us to this city, the capital of our great Commonwealth. I say the capital of our great Commonwealth, for I am proud of North Carolina, the birthplace of liberty on the American continent; yea, the mother of the greatest republic that God's sun has ever shone upon. I am glad, I say, that the Declaration of Independence of this American continent had its birthplace in North Carolina.

"Carolina, Carolina, heaven's blessings attend her,
While we live we will cherish, protect and defend her.
Tho' the scorner may sneer at, and the witlings defame her,
Our hearts swell with gladness whenever we name her."

We come to this city to accept the welcome which you have extended us. Take in the *personnel* of this Convention, Mr. President. I am proud of this body of men. You look around, and the red noses and blear-eyed dentists are conspicuously absent. I am proud of that. We have men of character, of whom I am proud; of whom our State is proud. We come to mingle with you and to accept your hospitality. We come as dentists, to confer with one another in our profession for the alleviation of human suffering, that we may be benefactors of mankind. As my mind runs back through the years, I am proud of the progress, as my brother has said, that the North Carolina dentists have made. We have one motto, and that has been "Forward and Upward," and, while we have not obtained to the high standard that many of us have desired, yet it is apparent that we have made commendable progress; and, while our clinics have not reached the high standard to which we have always aspired, I am proud to say that they have been an honor to ourselves and an honor to the profession. We are here to-day and the days following to make an advance step, as the brother has said, and it is with hearts full of noble, holy ambition and pride that we add our quota to the advancement of a profession of which no one shall be ashamed. We come as æsthetics, those who can appreciate the beautiful, for the dentist that cannot appreciate the beautiful and lend his hand and skill to that attainment, has not obtained the proficiency in his profession that he ought. And I am glad that we have men here who have exhibited some beautiful work along that line. We have men here who are Hunters, always looking out for that thing. Even the Ayer's full of it; and if, while Roming-er around, she goes wild, we have a man to Turn-er back, and if she does not turn, why we have a man here to Lynch her.

We have come to accept the hearty invitation that you have extended us, not only from a professional standpoint, but as gentlemen, to enjoy the social pleasures that you have to offer us, and to look around and see the city and to see the stones that you have laid, the buildings and institutions of learning, of which we are proud. We come to see them. I hope no one has come to look after the deficiency of the water supply that the brother has referred to. I hope he will attend to that himself. I will risk my chances with the water supply that the city furnishes. We do not come as the tail end of a profession. We are here not as a part or parcel of a professional brotherhood. We are here not tacked on to anybody else, and I say that in our profession we are as scientific, and probably more scientific, than any body in North Carolina. We have not attained to the perfection that we desire or ought to desire, because we have not exercised our muscles in new fields as we ought; but I am proud that we have made the advancement that we have, and come now to make another step.

We accept your hearty welcome to this great capital city of North Carolina.

The roll was called by the Secretary, Dr. J. S. Spurgeon, and the following found present:

Drs. Alexander, Ayer, Bland, C. A.; Boyette, Frank; Benton, Banner, C. W.; Battle, Carr, I. N.; Carr, R. L.; Carroll, Cole, Davis, W. Ross; Davis, I. H.; Everitt, Fleming, Griffith, Goodwin, Hawes, Hunter, T. M.; Harris, Hilliard, Harper, Horton, H. V.; James, Jeter, Jones, Keerans, Little, Liverman, Lynch, Matthews, McCracken, J. T.; McCracken, F. W.; Morrow, Moose, Osborne, J. C.; Osborne, J. R.; Parker, Patterson, Ramsey, R. L.; Ramsey, W. B.; Ross, Rominger, Snell, Smathers, Smithwick, Spurgeon, Turner, Tucker, Wyche.

The minutes of the last meeting were read and approved.

Dr. Keerans being called to the chair, the President read his address, as follows:

THE PRESIDENT'S ADDRESS.

Gentlemen of the North Carolina State Dental Society:

It is indeed a pleasure to see so many familiar faces, to meet so many friends, brothers of a like profession, those engaged in the same calling, whose thoughts are as our thoughts, whose aims in life are our aims; nothing could afford me more pleasure than meeting here with you, and I always look forward with pleasure each year for the time of our annual gathering. I never attend one of these meetings that I do not go away feeling that I have been benefited, and always feel that I have been lifted to a higher plain of manhood and am inspired with a determination to do better, more conscientious, more painstaking work.

We come here to compare our methods, to exchange ideas, to gain knowledge and to disburse it to others, to teach and to be taught, to tell each other of our successes, and how we attained success, and of our failures, and why we failed; in other words, to discuss the progress of dentistry for the year, to set a mile-post in the onward, upward march of dentistry in North Carolina. Nor are these the only motives that bring us together: it is demanded of us, as the representatives of dentistry in North Carolina, that we shall meet from time to time, and take such action and superintend the passage of such laws as will result in the protection of our people from charlatanry, and will maintain, yea, increase, the high standard to which the profession has attained in the State, and while we are at work trying to rid ourselves of the quacks

throughout the State, let us remember that there are *two* ways of elevating the profession—the first, by getting rid of the quacks, and the second, by improving ourselves and our Society.

No one realizes more fully than myself the great work our Societies have done and are doing: to them, in great measure, belongs the credit for the exceptional progress that has been made in dentistry in the past few years. The standards of the dental colleges have been raised, the time for completing the course extended, new colleges established with better equipments and appointments, and now every college that proposes to teach dentistry must be thoroughly fitted out with all the latest electric appliances, her laboratories must be equipped with everything that will be of advantage in teaching all that is latest and best in dentistry. She must have a corps of thorough and competent demonstrators, and her professors must be of the best men of the profession. Such are the requirements of the colleges that are to teach the dentistry of the twentieth century.

There has also been great improvements along the line of our literature. Any man who wishes, may now have a first-class dental library, such as is a credit to any specialty of medicine. The best men of the profession are to-day contributing to our many journals, are writing books or papers, and are thus leaving their wealth of knowledge in such shape that it may be of value to future generations.

Along the line of instruments and appliances no profession can equal us, or can claim such progress and improvements as we have attained in the past few years. All these improvements in all the branches of our profession have been largely influenced by, or are the direct outcome of the Societies; but our work is not done, nor even well begun—great possibilities still lie before us.

As to our own Society, there are a few suggestions which I wish to offer: first, as to the number of our membership; we now have a membership of about ninety, and there is no reason, it seems to me, why we should not increase it to more than two hundred, for there are more than that number of good, honest, reputable dentists practising in the State, and every man of them should be a member, and attend the meetings of this Society.

No one of us, however ignorant, but that knows something that would be of interest to some other member, and no one is so well informed but that he may yet learn something more, so the greater number present at our meetings, the greater benefit the meetings will be to us all. Let us try to draw in to us all the good dentists of the State. If we take the pains to speak to them about the matter whenever we have an opportunity, and try to show them what a benefit the Society will be to them, and how they cannot afford to stay away from these meetings, I think we will soon have increased our membership very much. But here again is a place where we must exercise caution, for, while we want all the

good men, we do not want *any* of the *bad ones*. It is thus by watchful care that we are to keep up the high standard of our profession.

It is an undisputed fact that no dentists in the world stand higher, or even as high, as American dentists, and among American dentists none stand higher than do *some* North Carolina dentists, but all North Carolina dentists do not thus stand, and every man of us who has not this high standing lowers the standard of dentistry in our State, and it is toward these that we need to address our efforts. Since every man who proposes to practise dentistry in our State must come before our State Board, which meets with us, it gives us an opportunity to reach them, and I think we should try to become acquainted with them, to invite them into our meetings, and place a copy of our By-Laws and Code of Ethics in their hands, and try to get them to join with us in the work we are doing, and to try especially to impress upon them their duty in trying to sustain and maintain the dignity which our profession has acquired. Also, they should be impressed with the idea that their duty as practitioners of dentistry requires them to conduct themselves at all times as become gentlemen; that drinking, swearing, loose or vulgar conversations are not under any circumstances to be indulged in. They must be neat and tidy, both in their office and in their dress, and must realize that plenty of soap, water, towels, napkins, scrubbing brushes, dust-pans, etc., are a necessity in every dental office, and that these articles are not to be kept for ornamental purposes only. Another thing that should be impressed upon them is the truth that anything that savors of advertising is most emphatically condemned by all good practitioners. The only advertising which will be recognized, or which they will need, will be good, honest, painstaking, conscientious work, and if they do this they will not be long in building up a good practise. One other thing, and that is one about which we all should exercise the greatest caution at all times, our duty toward each other. Let us always, when working for one who has been the patient of another, be extremely cautious about what we say. I sometimes think that the golden rule has an especial application just here, and if there had been dentists at the time it was written, I would almost be tempted to believe it was written especially for their benefit; *certainly* it has an especial application in these cases, and I fear many of us do not always apply it. Whenever we feel inclined to criticise the work or treatment of a case by another, we should rememember that not all the work that we ourselves do is perfect, and that even we sometimes make mistakes and have failures.

Another thing about which the young practitioner needs to be warned is the use or recommendation of patent nostrums. There are always great temptations thrown around him in this direction, for their advertisements are so alluring, and their arguments so convincing, that many are tempted off into their use, but if he be impressed with the idea that no honest, conscientious practitioner will use or recommend a remedy

or compound about which he *knows nothing* of the physiological action, except what he reads in their advertisements, and it is a sign of the densest ingorance for him to use, recommend or even tolerate the use of such stuff by his patients. Then, if he has a conscience, I think he will call a halt and draw the line as it should be. It is essential that all of these things be most thoroughly impressed upon every young man entering the profession. If we would maintain a high standard of dentistry, and *deserve* the name of a *specialty* of *medicine*, it seems to me that the best way to do this is to direct our efforts toward getting them into the Society, when by their very contact with the better dentists of the State they are inspired with higher ambitions and nobler purposes, and if they start right they will keep right. I sometimes wish that we had some way of getting the young men into the Society that would act like the African Court of Justice, when they gave an accused criminal a poisonous dose of Strophanthus, and if it killed him, he was adjudged innocent, but if it failed to kill him, he was adjudged guilty, and they proceeded at once to execute him. I would have it so that if we could not *draw* them in, that we could *force* them in; not that I would inflict an injury, but that I would confer a blessing; for, like Uncle Sam's men in the Philippine Islands, we would only be offering them a blessing and forcing them to take it.

Another thing about which we need to improve is in the number of papers that are ususually presented on the different subjects. No subject should ever be passed without one or more papers being read upon it, and every member, when assigned to a special subject, if he finds that he cannot prepare a paper on the subject, should at least study up the subject, and be ready for a free discussion when the subject is called and all the papers read. The preparation of a paper can be made very easy if we only commence early to jot down any thoughts that happen to occur to us from time to time, and in a short while we will find we have the outlines of what *will be*, with a little polishing, quite an excellent paper, and one that will prove no less a benefit to ourselves than to our brothers before whom we expect to read it.

I think we might yet make some improvements in the line of clinics, not in the quality of the clinics, for they have been excellent, but in the number of them and in the facility for seeing them. I believe that more members are influenced to attend these meetings in order to see the clinics than for any other one reason, and I also believe that we learn more that is of practical value to us from the clinics than from any other part of our programme; therefore, I think we should try to make them as interesting and instructive as possible. Whenever there is any new operation, or any new method, or process for doing a piece of work comes out, or any new instrument, or appliance that has merit, or the promise of merit in it, we should attempt to have it shown before our Society. The inventor of any new appliance is always glad of an opportunity to demonstrate it

before a good Society, and it is to his interest to do so. Also, the originator of a new operative procedure will be delighted to show, or have shown, his method of work, if only he be invited. Let us look to it that all that is new in dentistry shall be shown and demonstrated at each meeting of our Society, even though it should cost us a little. We would be more than repaid for our trouble and expense.

Another suggestion that I wish to make is the setting apart of one or two hours in the regular order of business for the discussion of "Incidents of Office Practise," in which the members may describe any peculiar cases that have occurred in their practise, or show models or special instruments, or describe any new methods of treating certain cases, etc. I feel assured that an hour or so thus spent would prove interesting and instructive, and that many little points would thus be brought out that would prove of inestimable value, and this leads me to suggest the employment of a stenographer every year to take notes of the meetings, for I know from experience that it is impossible for the Secretary to take down all the valuable points in a discussion. And so very much of it is lost that might be thus saved, and when printed in the proceedings of our meetings, which we now publish, would prove extremely interesting.

One other suggestion is the necessity for a revision and reprint of our Constitution, By-Laws and Code of Ethics. It has now been ten years since the last revision, and since that time many important changes and amendments have been made: some other changes might yet be made with advantage to the Society. I think it very necessary that we keep our Constitution and By-Laws up-to-date, and then abide by them rigidly, and I would suggest that a committee be appointed for this purpose, who shall prepare a complete revision, embodying all the amendments that have been made since the publication of our present copy, and also make such other additions and amendments as in their judgment seems proper, the whole to be submitted to the next annual meeting of the Society and voted on separately, one at a time, and also in having the revised Constitution, By-Laws and Code of Ethics printed, would suggest that we also include the State laws in regard to the practise of dentistry in this State, for I am aware that most of us are very ignorant in regard to our State laws, and this would be a convenient and easily accessible place for us to refer to it whenever we desired to do so.

And now, in closing, I have one request to make, and that is in regard to being prompt in your attendance upon the sessions. When we adjourn to meet at a certain hour, let every member be here promptly at that hour, and not delay those more enthusiastic members who do come promptly. I sincerely hope that promptness shall characterize this meeting, and that every member will consider himself included in this request for promptness. Let us come promptly, work systematically, and then all take our recreation together.

C. W. BANNER.

The President's address was referred to a committee composed of Drs. J. F. Griffith, H. V. Horton and C. A. Bland.

On motion of Dr. Turner, Dr. Thos. P. Hinman, of Atlanta, Ga., was elected an honorary member of the Society.

Dr. Hinman expressed his appreciation of the honor conferred upon him, and gave assurance to the Society of his pleasure at meeting with such an intelligent body of men.

On motion of Dr. J. F. Griffith, the reading of the Essay was deferred until the night session.

Applications for membership were received from John E. Banner and C. A. Whitehead.

On motion of Dr. Everitt, a recess of fifteen minutes was taken for the payment of dues.

On motion of Dr. Turner, Dr. Chapple and Dr. Crenshaw, of Atlanta, Ga., were unanimously elected honorary members.

Both gentlemen acknowledged the compliment in well-chosen words.

Report of Publishing Committee, Dr. I. N. Carr, Chairman, was received and the committee discharged.

No report was made on the subject of Prophylaxis, and the same was passed temporarily.

The Society then adjourned to meet at 3:30 p. m.

FIRST DAY—Afternoon Session.

Pursuant to adjournment, the Society was called to order by the President at 3:30 o'clock p. m.

The subject of "Physiology, Anatomy, Histology and Microscopy" was passed temporarily.

Drs. John E. Banner and C. A. Whitehead were unanimously elected members of the Society.

On motion, the subject of "Prosthetic Dentistry" was passed temporarily.

The subject of "Crown and Bridge-work" was then taken up. Dr. E. J. Tucker, Chairman, read the following paper:

SOME OBSERVATIONS IN CROWN AND BRIDGE-WORK, OF A FEW YEARS' EXPERIENCE.

The subject, "Crown and Bridge-work," is too large for me to deal with in general, so I shall confine my remarks to observations made in my few years' practise.

I regard crown and bridge-work the most progressive specialty of our profession. And from this specialty the honest, careful practitioner may see from his handiwork, the nearest approach to the natural organs of mastication, the surest and best service to his patients.

If I appear an enthusiast on this subject, I hope you will not count me an extremist. I am cognizant of the fact that this part of our profession is probably most abused; but is not the whole abused? We answer, yes.

So we conclude there is no good reason for abuse of a part, neither the whole. The abuses come not from the honest, conscientious practitioner. It is right that we call attention to the abuses in the profession, with the hope that to some extent they may be remedied, but we can never hope to stop them fully, because we have the abuses among us, and shall have them until the end of time.

I offer the good old advice to all who do crown and bridge-work: "Use the greatest care, every precaution and sound judgment, always believing that success favors the case." After using all these precautions, in many instances we shall see failures.

I regard cleanliness one of the cardinal points to be observed in crown and bridge-work. A rightly constructed and adjusted bridge should admit of thorough cleansing.

No part of the bridge should impinge on the soft or surrounding tissues. I do not believe in metal coming in contact with soft tissue, and advise against such wherever possible. For instance, in posterior bridges, where the teeth to be crowned are good and gum tissue healthy, I would not allow the crown, or gold, to come quite to the gum, for you will find after wearing a gold crown pushed well up under the free margin the gum will have a somewhat dead appearance. The free margin is always just a little above the metal, and therefore you have a pocket for the accumulation of food and bad odors.

You can usually take a small instrument and pass around under the margin of the gum above a gold band, or crown, and find a pocket of putrid matter where special care is not given to cleansing thoroughly.

The majority of bridges put in are for replacing the bicuspids above and bicuspids and first molars below, and for these cases I advocate (and in most instances use) the open arch bridge, if in man's mouth, with moustache, I prefer to make an all-gold bridge. I will not enter into the manner of construction, except the attachment. If to replace bicuspids, and cuspids are decayed much, cut off and crown, but if sound, I grind off the cutting edge just through the enamel, make a window, or open crown, drill two holes in the end of the tooth for platinum pins, not endangering the nerve, adjust the crown-pins through the end of the crown, well up in the holes, take off in wax, invest in sand and plaster, make a cast-crown filling on end over pins, and I have a strong, neat attachment.

I suppose you might call this a window-cast-crown filling attachment. The other part of the bridge I make in the usual manner. I use this attachment always with the window, or open crown. I have recently made two bridges, restoring the superior cuspid alone, the other teeth being sound. I used the first bicuspid for the attachment, as in the other cases mentioned, grinding away the inner cusp and restoring with gold.

I also use in cases like this a little spur attachment on the cuspid to rest against the bulge of the lateral incisor. It gives strength in biting outward. Not so much harm comes from the straight bite, but the lateral and outward bite gives us trouble. You will see from specimen the use of the spur attachment. As to single crowns I use the all-gold, Logan or Richmond; we all use these in about the same manner, so I will not take your time discussing them. I prefer the Richmond to the Logan crown for strength and accurate adjustment.

I am pleased with Dr. Alexander's new crown on paper, and expect to try it, as he always gives us something good.

For obtaining dies and counter-dies, I use cuttle-fish, babbitt metal and lead. I will take pleasure in showing this method to any one.

Cast-crowns—too much praise cannot be given this line of work. Dr. Alexander has demonstrated and told us much of the cast-crown filling, so I will not discuss, but commend it.

I do not see how I could well get along in practise without the cast-crown. I believe teeth are rendered serviceable by this method that could not be made so by any other method.

The breaking off of porcelain facings from bridges gives us no little trouble. How to replace them in the best and easiest manner is a hard problem. If the bridge cannot well be removed, my method has been to cut old pins away, drill holes for the pins, counter-sink them, and fill usually with amalgam, always serrating the pins. I have had good results from this method.

I have recently tried a new way to me. Take impression of the backing and base where the facing was broken from, grind tooth to fit model of backing perfectly, and then drill holes or cavities for the pins (in tooth to be used) with diamond drill, toward the base, until deep enough; thoroughly cleanse and dry, cement the tooth on and you have a seemingly good repair. I have had one in use for several months and it seems all right yet. I have a specimen showing the method.

When we get an insoluble, disintegrating, vitrious cement and teeth moulded for this kind of work, possibly we may attach teeth to bridges in this manner. You will see from specimen that the undercut in the cavity for the pins is made outward and toward the base of the tooth, allowing no special strain on the porcelain septum, the strength being required of the main body of the tooth.

The saddle bridge I will not discuss. To my mind it has no place in dentistry, as it is uncleanly, and therefore a source of irritation.

The removable bridge I have had no experience with, but it seems to me that bad odors would be the result, as we know the secretions of the mouth always find a hiding-place, and find it with the removable bridge. I have had patients to wear bridges for a week or more before cementing them in, and the odor from the accumulation would be very bad in this short while, though I have no practical experience with the removable bridge, and can give no opinion righteously. There are other things that might be said on this line, but I have taken enough of your time.

A summary, and I close. Solder large cases in sections. Always heat up every case slowly and thoroughly before soldering. In soldering, have one hand free to use, have tickler at hand, that you make the solder go to every little place. If you carelessly or otherwise burn away a part of backing while soldering, do not stop to take your case out, but just take platinum foil the size needed, flow Parr's wax flux on it, warm and burnish to the place your backing was burned, solder just as if you had made no mistake, and all will be well.

In using bicuspid facings, grind slanting to a feather-edge, fit metal cusp to near a perfect joint, flow Parr's flux in the joint and the solder will flow in where the flux is and make a perfect job. We often have black, ugly joints in cases like this, but by using Parr's wax flux you will have good joints.

You will see better from specimen what I mean. In crown and bridgework, as in every line of our noble profession, honesty and sound judgment are the guiding stars; following these, we shall render the best service to our patients and honor the profession.

Gentlemen, I submit these observations for your charitable consideration.

"To the many faults be a little blind,
If there be virtues be very kind."

E. J. TUCKER.

DISCUSSION.

Dr. Everitt said:

"I commend the paper most heartily. It shows that the writer has spent a great deal of thought on it, and has reached some very good points. First, he strikes one point that it would be well for every member of the profession to look at very carefully and honestly, and that is using good judgment in selecting cases for bridge-work. Unfortunately, there are men in the profession who are so enthusiastic that they make great mistakes in putting in bridge-work, and the result is that they are foul and uncleanly.

"Another point—his crowns passing up to the gum. I differ from the brother somewhat on that point. He may be right, and I wrong. I won't say that I am right. I differ with him from this standpoint: Nearly two years ago I made a bridge, and in putting it in the cement became hard a little too soon, and it did not get down, as it was made to go, between the gum and teeth. In the course of eight or ten months the patient came and complained of a sensitiveness all around the teeth. I removed the bridge, reset it, and heard no more complaint.

"There is another point that I cannot exactly agree with my brother on, and I think that he will find from experience, as I have found, that he is wrong; that is, making his bridge with a spur running against the tooth. He will find that the spur will soon wear the tooth that it strikes, and it will become so irritating that it will have to be removed entirely. At a meeting in Winston, some years ago, I exhibited a removable bridge of thirteen teeth. I will try to get that patient to come before the Society and let you see it. It has been worn six years. There has never been a suspicion of foulness about that bridge. When I made it I had great fears of its being a failure, but it turned out such a beautiful success I am proud of it."

Dr. Smithwick asked for information in regard to putting in a bridge to close up a little space where the second bicuspid was gone. Dr. Everitt said there was no necessity of putting in a bridge at all, unless the teeth have a tendency towards spreading instead of closing up.

Dr. Osborne said: "My judgment in a case of that kind is just to let it alone." He said a dentist, some time ago, asked him about the shell-crown, and asked him how it was indicated. He told him it was indicated nowhere in the mouth. He told of an instance where he put on a shell-crown for a child ten years old, and said he ought to have

been put in the Penitentiary for a ten years' term for doing such a thing. He said: "A man ought to be put in the Penitentiary for putting on a gold shell-crown, where it will be seen, anyway."

Dr. I. N. Carr said:

"I have listened with a great deal of pleasure to Dr. Tucker's paper. I noticed the other day a bridge in a gentleman's mouth, to which I wish to call the attention of this Society. It struck me as being a very good thing. It was thoroughly clean, sweet and nice. It was a bridge from the first bicuspid to the second molar in the lower jaw. The second molar in the lower jaw stood up well from the gum line, and the party had simply cut off the cusps, not anywhere near the neck, and treated the first bicuspid in the same way. As is freqently the case, you want to bridge a chasm where the adjoining teeth, that you use as an abutment, are generally sound teeth, and it does look cruel and barbarous to cut down those sound teeth. If you will trim off the cusps and put on a half-crown, so you can get to the tooth, the crown is so shaped that the angle will come just at the point of contact, so that it can be kept perfectly clean by drawing water through the teeth, as if you had two contour fillings. If you can do that, especially on good teeth, it is a fine thing. I never saw it before, and have never made one myself. I thought I would bring it up, and let you see what you thought of it. It struck me as a good idea."

Dr. Hinman, being called on, said:

"There are one or two things that have impressed me very forcibly in crown and bridge-work, especially where we wish to restore the lower molars, and that is, the average bridge is exceedingly filthy on the lower jaw, and I have hit upon a little scheme, after practising four years, which I think very practical. Suppose a case where the first and second molar have been extracted, and the second bicuspid taken away, and you want to put in a bridge. After crowning both the teeth carefully and thoroughly, a plaster cast is taken, and then a piece of round or square bar is soldered between these two abutments. This, in itself, gives a great deal of strength. After that is done, the cusps are swaged up to fit on the top of this bar and to fit the teeth. Then the bridge is removed, and it is then filed into a V shape, that is, from both sides, making a cleansing surface from both sides, so that the little finger can be run under the bridge to thoroughly clean it. This little idea has been very successfully practised with me, so much so that all bridges on the lower jaw are constructed after this principle. That may not seem to be a very strong point, but if you will try it, as I have tried it in a great many cases, you

will find it the cleanest and strongest bridge that you can make, and all in all, the most successful bridge you can make.

"It is folly to make a piece of bridge-work extending from a cuspid to a wisdom tooth, because the stress of mastication will loosen it. After both teeth are carefully crowned, having perfectly parallel sides, an impression is taken of the alveola ridge, and a piece of iridio-platinum is made to fit the ridge. Around each one of these crowns, having parallel sides, is fitted a band, made not of gold, but of glazed metal, and there is the secret of your work, on account of it being hard and unyielding. Place the crowns in the mouth and take an impression, pulling off the crowns and plate in one impression. Remove the band and crown together, leaving the band in position with the plate, then solder the plate with the band. After this is done you will take a fresh impression and solder your teeth. I have used this plan four years, and have found it very successful."

Question by Dr. Horton: "Do you let the gold run under the margin of the gum?"

Answer: "Yes."

Dr. Patterson stated that he had trouble with his bridges coming loose, and asked what kind of cement Dr. Hinman used. Dr. Hinman said that he had tried a great number of cements, but the one that had given him the most satisfaction was the Aimes cement. The fast-setting cement is better for crown-work and slow for bridge-work. By wiping the tooth with aromatic sulphuric acid, or pyrozone, the cement sticks better.

Dr. Crenshaw said:

"I believe the half cap crown will be universally adopted wherever it is possible, and it is possible where the teeth are sound above the gum margin. I have had some cases of that kind to come under my observation, which were giving such good satisfaction, that I was induced to believe that this was the best thing to do. First, you can tell when your crown fits the stump or the tooth, and you cannot tell when you project it under the gum. It is impossible to burnish a cap under the gum. It cracks up the cement under the edge of the crown, and leaves the matter worse than if you had not attempted to burnish it. You can see your margins, and you know, when you slip the crown on, whether it fits or not; if it does not, you can cut it down and re-solder. I believe that that style of work ought to be adopted by us all. If we would do this we would avoid the loss of a good many teeth, and also avoid a cess-pool of microbes that are under the crown that does not fit the tooth."

Dr. Chapple said that the idea of a double bevel, or V shape surface, under the bridge may be original with Dr. Hinman, but it is original with others of them. He thinks it is the correct method. He said, though: "I have not adopted his plan of carrying a bar from one tooth to the other. I do not think it necessary. His suggestion in regard to that style of work has been practised by others and by myself, and is a good one, and I think you will all concur if you will practise the shaping and constructing of bridges in that way."

Dr. Broughton said:

"I feel somewhat like a school-boy on one occasion, when he was called upon in the Physics class to explain what space was. He scratched his head awhile, and said he knew, because he had it in his head. I know a little about bridge work, because I have it in my head, but when it comes to a discussion I feel somewhat at a loss, since hearing such able discussions put forth on the floor. I heartily concur with Dr. Tucker in what he says, except as regards the window-face crown. I have found, from my limited experience with bridge-work, that it is almost impossible to keep them clean, and I bevel the edge around the tooth in order to make it become self-cleansing. Unless the tooth can be more or less self-cleansing it is a failure. Therefore, in my practise and college work, I never advise the use of window-faced crowns, when it can be helped. I always advise either the gold crown or the Richmond crown.

"I was very glad indeed to hear Dr. Hinman on the method of constructing lower bridges. In my judgment, we have more trouble with the lower bridges than any other we have to contend with, from the fact of their uncleanliness. In a case where the first and second upper bicuspid was solid and firm, if we agreed with Dr. Tucker we would put in a window-faced crown. I would destroy the nerve and put in a Richmond crown. I never used the other method without a little remorse of conscience. I always tell my patients what I am going to do; and why, if they do not like it, they may go to some one else and have what they want done."

Dr. Carr thought Dr. Broughton's method bad practise, and gave an illustration of a piece of bridge-work in his own mouth by Dr. Alexander's method, which had given perfect satisfaction for two years. Said there was no Richmond crown on the tooth, and the cuspid was solid and

had never been decayed. There is absolutely no gold to show whatever, and the strength of the tooth is not impaired in any degree, and is perfectly clean and strong. He considered the Alexander method the best ever made, and said he would take pleasure in showing it to all who would like to see it.

The subject was passed, to be taken up at the night session.

The Treasurer's report was then read, as follows:

TREASURER'S REPORT.

Amount on hand last report	$474.47	
Received from membership fees	45.00	
Received from back dues	9 00	
Paid janitor in Fayetteville		$ 5.00
Paid S. P. Hilliard (death notice)		3.25
Paid Secretary Banner		62.80
Paid Treasurer James, for two years		50.00
Paid E. L. Hunter, superintendent clinics		28.28
Paid E. L. Hunter, printing		1.50
Paid V. E. Turner, prosecuting		25.00
Paid I. N. Carr, printing committee		1.50
Paid I. N. Carr, printing committee		.50
Paid The Educator Co., printing		38.90
Paid Dr. Griffith, expenses to Omaha		104.25
Total	$528.47	$320.98
Disbursements by vouchers	320.98	
Balance on hand	$207.49	

D. L. JAMES, *Treasurer.*

Drs. Tucker, Patterson and Horton were appointed as Auditing Committee.

The subject of "Voluntary Papers" was made a special order for the second day meeting at 3:00 o'clock P. M.

Application for membership was received from Dr. J. A. Gorman.

By vote, Dr. I. N. Carr was asked to read his paper under the head of "Voluntary Papers" at this time.

DR. CARR'S PAPER.

THE VALUE OF SUGGESTION IN RELIEVING PAIN IN DENTAL OPERATIONS.

At the World's Columbian Dental Congress, held in Chicago, August, 1893, a paper on this subject was read by Dr. Fillebrown, of Boston, and afterwards published in the *Transactions*. Since that time I have studied the subject very closely and observed the phenomena almost daily, so that, in bringing it to the attention of this Society, I feel that I can do so with the firm conviction that only good can result. I therefore ask your attention for a short time, while I endeavor to make clear to your minds what I mean by "Suggestion." Before doing so, however, it will be necessary to state one of the basic principles of Psychology, which is the dual character of man's mental organization; that is to say, man has two minds, each endowed with separate and distinct attributes and powers, each capable, under certain conditions, of independent action. All truly scientific writers of the present day designate the one as the *objective* mind and the other as the *subjective* mind. In other words, one is that mind with which we reason and calculate, and the other is the soul of the man, or the mind of the soul, to so express it, that mind which never forgets anything; it is the store-house of memory. It is to this mind that suggestion is made, and it is constantly amenable to control by suggestion, and unlike the objective, or reasoning mind, it is incapable of inductive reasoning. It can only reason deductively from a given premise. It is the study of this mind, and the phenomena which can be easily induced, that is destined to banish skepticism and materialism from the world, because it can be scientifically demonstrated, by purely natural laws, that the subjective mind, or soul of man, is strongest when physical dissolution takes place, and that it must live on beyond the grave. This statement is based upon the observable and demonstrable facts of experimental psychology, so far as those facts have been definitely ascertained through modern scientific investigation. This subject, however, it is not my purpose to enter into. I will therefore dismiss it, and endeavor to state what I understand to be the meaning of the word "Suggestion," as it is employed in psychic science. Suggestion is a statement (true or false) made to the subjective mind of man, and can only be made while that mind is in a full or partial psychological state. I say full or partial, because it is not necessary that the subject should be soundly asleep, in order that suggestion can be made to the subjective mind. This fact can easily be demonstrated—I have done it a thousand times. Now the potency of the suggestion consists in the fact that in the psychic condition the subject unhesitatingly believes the statement or suggestion, and acts upon it just as though it were true. Thus, the

suggestion may be made that the subject is an historical character (George Washington, for instance), and he will act the part or exhibit the character to perfection, within the limits of his mental or physical power, firmly believing the suggestion to be true. Its very nature demands that it accept the suggestion as true, because, as I have before said, it cannot reason inductively, and is controlled entirely by the objective mind. When you look at it, as a distinct entity, or personality, you will be the better enabled to appreciate its importance and significance. It is a distinct entity, and is not dependent upon any part of the brain for its functions. If this were not so, when the body dies, it would die also. It has been demonstrated by anatomy, beyond the shadow of a doubt, that the human brain is not the sole organ of the mind. I said a moment ago that man has a dual mind, or two minds. Now, then, if this hypothesis is the true one, all the facts of nature, whether of psychic phenomena, or of physical structure, must conspire to demonstrate it. At least, there must be no fact that will disprove it. "Thus, if it could be clearly demonstrated that the brain is the sole organ of the mind, the hypothesis of duality must fail for want of a plurality of organs through which a second mind could manifest itself." It is true that the brain is dual in a purely physical sense, that is, there are two hemispheres; but it is demonstrated that they are duplicate organs of the same mind; indeed, there is no evidence that the two hemispheres are not identical in function and normally synchronous in action. If, therefore, duality of mind is to be demonstrated by reference to the physical structure of the animal man, we must expect to find an organ for one of the minds outside of the brain, and measurably independent of its conditions or even of its existence. It must, moreover, be the organ of the subjective mind, for it is demonstrable that the brain is the organ of the objective faculties. The organ of the subjective mind must therefore be the organ of the instinctive faculties. If it is the organ of the instinctive faculties, it is necessarily the organ of the faculties of intuition and all the others which are designated as subjective. Fortunately we have not far to look for demonstrative evidence that the required organ exists, not only in man, but in the lower animals as well. In support of this declaration I shall now cite a passage from the writings of one of the ablest scientists that ever lived, namely, Surgeon General Hammond. What he has said on the subject was written without reference to the dual hypothesis. It has, therefore, all the greater evidential value, for that it was written solely in the interest of pure science. In one of his later works the following appears:

"The brain of man is more highly developed than that of any other animal; he has reasoning powers in excess of those possessed by any living being; his mind governs the world, and, not content with that, seeks for knowledge of those spheres beyond that in which he dwells.

But, with all this, he is surpassed by almost every other animal in the ability to perform acts instinctively—by beings, in fact, whose brains are infinitely less perfect than his, and by others which have no organs corresponding to a brain.

"If the instinct of man were seated in his brain, he would doubtless exhibit a development of this faculty so great as to place him on that score as high as he now stands, as regards his mind.

"Going back, for the present, to some of the lower animals, we find that we are able, by certain experimental procedures, to settle some points relative to the seat of instinct with absolute certainty:

"1. It does not reside exclusively in the brain. The brain of many animals, especially of those belonging to the class of reptiles, can be removed without the animal suffering any very considerable immediate inconvenience. In such cases the instinct remains unimpaired. Thus Maine de Biran states that, according to Perrault, a viper, the head of which has been cut off, moved, without deviation, to its hole in the wall. It is impossible that the viper could have seen, heard, smelt, tasted, or felt the wall. It could only have gone toward it instinctively, through the action of a force not residing in its brain, and altogether independent of perception.

"It is an instinct in certain animals to swim when placed in water. I removed the entire brain of a frog, and, after waiting a few minutes for the animal to recover from the shock of the operation, I placed it in a tub of water. It immediately began to swim. I held my hand so that the animal's head would come in contact with it, and thus further progress be prevented. Continued efforts to swim were made for a few seconds, and then ceased. Removing my hand, the animal again swam.

"I have repeatedly performed similar experiments with turtles of various kinds, and lately with water-snakes. In all these cases the whole brain was removed from the cranium, yet the animals did not wabble about aimlessly in the water, but swam straight out into the stream or pond, apparently with as complete a purpose to escape as though they still possessed the full degree of consciousness of the unmutilated animals.

"Such experiments show, beyond a doubt, that perception and volition are not seated exclusively in the brain, and thus that instinct is not indissolubly connected with that organ.

"It is impossible to make similar investigations in the higher animals with such definite results as those obtained with reptiles, but we may call to mind the fact familiar to all physiologists, and to which reference has been made in an earlier part of this work, of the behavior of a pigeon, the brain of which had been removed. Though in such a case most of the actions are the result of perception, yet some, as for instance, the act of flying when it is thrown into the air, are purely instinctive. But nature has performed many experiments for us, and these not only on the lower animals, but also on man, which teach us conclusively that,

even in him, instinct does not reside in brain. They show, too, that certain faculties of the mind are not confined to that organ; but with that fact we need not a present concern ourselves.

"In certain monsters born without a brain, or with important parts of this organ absent, we have interesting examples of the persistence of instinct. Syme described one of these beings which lived for six months. Though very feeble, it had the faculty of sucking, and the several functions of the body appeared to be well performed. Its eyes clearly perceived the light, and during the night it cried if the candle was allowed to go out. After death the cranium was opened, and there was found to be an entire absence of the *cerebrum*, the place of which was occupied by a quanity of serous fluid contained in the arachnoid. The *cerebellum* and *pons Varolii* were present."

Dr. Hammond then goes on at length to cite many intensely interesting experiments of demonstrating the marvelous strength and persistency of instinctive acts and emotions, after all the intra-cranial ganglion were completely removed. He closes the chapter as follows:

"In *microcephali* and other human idiots the instincts are sometimes exceedingly strong, and remain so through life. I have already referred to the instance of one of these creatures, an adult woman, holding a rag-baby in her arms as though it were a child, and in whom the maternal instinct must have been strong, and entirely uncontrolled by the intellect. Some idiots also evince a great instinctive talent for music and for arithmetical calculations, which, although capable of development, as are other instincts, are nevertheless innate.

"From these facts, and many others which might be adduced in a work specially directed to the consideration of the many interesting points involved, I think it may be concluded that instinct has at least its chief, if not its only, seat in the *medulla oblongata* and spinal cord. It is possible that the *cerebrum*, the *cerebellum* and the *pons Varolii* have some influence in strengthening the faculty; but this is not essential, and its exercise is not a mental operation."

Now, in view of the foregoing, it might be asked at this point, "If the objective mind is the function of the brain, and they perish together, why may it not be true that the subjective mind is the function of the spinal cord, and that it perishes with that organ?" It is a pertinent question, and can be answered satisfactorily at length, but, as it would take considerable time to do so, and as this paper was not begun with the idea of explaining every statement made, although capable of scientific demonstration, I will content myself with the remark that the subjective mind is not the function of the spinal cord, or the *medulla oblongata*, or the *pons Varolii*, or of the *cerebellum*, or of any other organ of the body. But they, or some of them, together with the nervous system,

are the *organs* of the subjective entity, *by and through* which it exercises its control over the functions and sensations and conditions of the body during its sojourn in it. If this were not so, the demonstrable fact that the subjective mind controls the sensations and functions of the body would not be true. To illustrate, put a man in the psychological condition and suggest to his subjective mind that there is no feeling in his arm, and you can run a knife through it, and he will not feel it. Why, won't he feel it? The answer is plain, because his objective mind, which is controlled by his brain, is in a passive state, or asleep, and therefore is unconscious of what is being done. His subjective mind is at the same time amenable to control by suggestion, and must accept the suggestion as true, because it *cannot* reason inductively. Its potency, therefore, as a therapeutic agent cannot be overestimated, and consists in the fact, as before stated, first, that a subject in the psychological state is constantly amenable to control by suggestion; and second, that while in this state the subject has complete control over the functions and sensations of the body, and consequently, if the suggestion is made to a psychologized subject that he feels no pain, all pain will instantly cease. It is thus that a state of anæsthesia is induced, which enables the surgeon to extract a tooth, or amputate a limb, without inflicting the slightest pain upon the patient. There can be no doubt that this is true, for it has been demonstrated thousands of times, and can be so demonstrated *ad infinitum.* Now, then, the question naturally arises, how are you going to get the benefit of the laws of suggestion in your every-day practise, when conscious of the unfavorable light in which the science of psychology is held in the minds of the general public? My reply is, that until the science is better understood by them, we must use it without their knowledge, and this is easily and successfully done. I stated a few moments ago that the suggestion could be made to a person when in a partial psychological state, or even in what is called the "waking condition." All that is necessary is that the objective mind of the patient be in abeyance, or in a passive state, and this condition is invariably present with every person who comes into your office with toothache. Let me illustrate – I will do so by asking a question. Did any one ever come to your office with an aching tooth, and a firm resolution to have it extracted, without finding that all pain ceased as soon as he entered your office? This has been my experience, and I am sure it has been yours. Of course, if the patient comes into your office with the idea of having the tooth treated and saved, it does not follow that the pain ceases immediately, but if he comes with a firm resolve to have it extracted, the pain ceases as he approaches the operating chair. Now, this phenomena means something, for nature does not produce phenomena for fun, and it is the province of science to interpret this meaning on lines which will relieve nature from the imputation of habitually perpetrating a joke on the victims of toothache.

Here, then, is a state of local anæsthesia, induced by a mental emotion, and mental emotions are produced by the subjective mind. In the case cited the emotion was produced by an approach to a surgical operation. Now, the question arises, what is the mental condition thus produced? I answer, it is the same condition that is observable in a person when in imminent danger or deadly peril; he is instantly thrown into a state of anæsthesia, or, in other words, into a partial psychological condition. It is the universal testimony of soldiers who have been in battle, that the moment the fight commences all fear vanishes. It is also true that a stricken soldier never knows he is wounded until he is disabled. Surgeon General Hammond has observed that not only is this true, but that if the wound is mortal, he dies without pain and withot regret. The reason for this is obvious. The man passes into a psychological state, or a condition cognate thereto, and he is in a complete state of analgesia. The same phenomena is also exhibited in criminals sentenced to be hanged. The moment hope is relinquished, and death is known to be inevitable, they become utterly indifferent, and when the fatal hour arrives they march to their doom without fear, without emotion, and without regret. Hence it is, you hear it said of them that "they went bravely to their death," or "they died game." The truth is, that nature has done for them just what it does for all living creatures, viz.: it has, upon the approach of death, thrown them into that subjective or psychological condition which banishes pain, and robs death of its terrors. These illustrations serve to show what a slight degree of the psychical condition is necessary to render a subject amenable to control by suggestion, and that even in the "waking condition" he can be so completely anæsthetized by suggestion as to bear, without the slightest sensation, a degree of pain which, in the normal condition, is almost unbearable. Now, I believe I have shown very clearly that all that is necessary is to get your patient into a partial or complete psychological condition, and then by a vigorous and intelligent suggestion to his subjective mind that he will feel no pain, he will not feel any. I am fully aware that this is a conclusion, so radically at variance with all preconceived ideas on the subject, that credulity will be taxed and proofs demanded. I will therefore present a few of the many facts which might be sighted in support of my hypothesis. A few weeks ago a prominent physician in my community had been talking with me on the subject, and was so thoroughly skeptical when I asserted that complete anæsthesia could be produced by this method, that I determined to give him a practical demonstration of the truth of the assertion. A day or two after our conversation an intelligent gentleman, a school teacher by profession, called to have a few teeth taken out, in order that a plate could be made to hold substitutes. I discovered as soon as he entered the office that he was very much frightened at the thought of having to undergo what he considered a very trying ordeal. I asked him to take a seat, and in a few minutes I

was able, by suggestion, to control the sensations of his body. I telephoned for the physician, and he came into my office very soon thereafter. I introduced him, and then asked the patient to be seated in the operating chair. The suggestion was at once made that I would cut around the gums without his feeling it, and then that I would extract the teeth without his feeling it. I extracted four firmly implanted teeth and roots with positively no more pain to the patient than if he had been completely anæsthetized by chloroform or ether. Suffice it to say, the physician was satisfied, and thoroughly amazed. On another occasion I opened into the antrum cavity and irrigated it without one particle of pain. I have extracted live nerves in the same manner and, without one particle of pain, excavated sensitive dentine, quieted nervous patients, and made them feel much better after the operations than they did before. These statements, gentlemen, are facts, and but for the prejudice in the public mind against occult science, inestimable good could be accomplished, human suffering mitigated, disease and premature death greatly lessened.

In conclusion, let me say that if you will study the laws of psychic phenomena you will be amply repaid and fully convinced of the truth of all I have said.

ISAAC N. CARR.

NOTE.—I am indebted to Dr. Thomson Jay Hudson, of Washington, D. C., for much of the matter in my paper. ISAAC N. CARR.

Drs. Moose, Horton, Parker, Chapple, Holland, Crenshaw, Keerans and Osborne made remarks, *pro* and *con*, on this question. Dr. Crenshaw said he would be very glad to see it put into practise, epecially on boys at the age of ten and twelve, who can be heard to hollow about a mile when having a tooth extracted. He thinks there is really a great deal in it, and thinks it ought to be encouraged. He says: "I believe Dr. Carr is sincere and scientific, and his paper is a most excellent one—too deep for me. I want to hear more of this, and I trust he will favor us on this line."

Dr. Keerans mentioned two or three instances where he had performed some very difficult operations by a similar "suggestion," and the patients said they felt absolutely no pain.

The subject was discussed at length, and Dr. Carr promised to illustrate his process of "extracting teeth without

pain" at the session of the clinics in the forenoon of the following day.

The report of the Treasurer was approved and the Auditing Committee was discharged.

The Society adjourned to meet at 8 o'clock P. M.

FIRST DAY—Night Session.

The night session was called to order at the appointed hour by the President.

Dr. G. W. Whitsett was re-instated to membership in the Society by a unanimous vote.

Dr. J. A. Gorman was elected a member of the Society.

Dr. Jones read the names of the successful applicants before the Board. There were twenty-three in all.

Dr. J. F. Griffith then read the Annual Essay, as follows:

EARLY DENTISTRY IN NORTH CAROLINA.

There exists abundant proof that dentistry, as an art, has been practised in all ages of the world; especially has it followed the paths of civilization.

It is recorded that the art was cultivated by Greece and Rome during their palmiest days of splendor and prosperity. During the period of the world's history known as the dark ages—even to the sixteenth century—but few traces of the art of dentistry are to be found, even among the records of medicine.

In the latter part of the last century there were only a few men regularly engaged in the practise of dentistry in America.

As a science, dentistry may be said to be modern, and its history as such is embraced within the span of one human life, as there are those now living whose professional contemporaries were the originators and promoters of the movement which gave birth to Scientific Dentistry, or the profession of Dental Surgery—the event being the organization and establishment known as the Baltimore College of Dental Surgery, at the city of Baltimore, in 1839—the first dental school in the world.

We delight to honor the memory of Chapin A. Harris and his associ-

ates, who, in the face of much discouragement and derision, organized an independent and exclusive dental school, where instruction in dental surgery as a specialty of the great healing art was made accessible to the dental aspirant, whose only means of obtaining knowledge had been in the private offices of the so-called dentists, the fees for the same being very exorbitant, and the term of pupilage limited to the ability of the student to pay.

Previous to the founding of the College at Baltimore dentistry was never recognized as a profession, but was regarded as a trade, pure and simple, and those engaged in practise were dominated by selfish interest, without "professional interest and brotherhood feeling." They had not yet caught on to the modern idea of patenting their thoughts, but did guard their secrets sedulously, and were induced to impart knowledge for a money consideration only.

The opening of the College brought about a great change. The faculty selected was composed of men educated in the science of medicine, who were well qualified to build upon the foundation laid, and to impart to others a knowledge of those things which, according to their judgment, were requisite to a proper conception and intelligent practise of dental surgery. The evolution of dentistry is unequalled by that of any other profession.

But it is not our purpose on this occasion to pursue the line of thought indicated in the foregoing remarks. We have merely employed the brief sketch of history as a prelude to a theme which we hope will be of interest to the members of this Society.

Through the courtesy and kindness of professional friends, we are enabled to give you a brief history of early dentistry in North Carolina, extending up to the year 1865, giving the names of the more prominent practitioners of that period, as well as some of their contributions to the profession.

It would be a pleasant duty indeed to bring this account of men and means, as it pertains to dentistry in North Carolina, up to this good year of our Lord, 1899, and to include the names and recount the deeds of the many faithful *Tar-heels* who have few equals and no superiors within the domain of dental surgery, but the length, necessarily, of such a paper, would defeat the object in view in selecting the subject we have, viz.: that of entertaining you for a short time.

After diligent research from every available source, we have found nothing recorded or traditional to warrant the belief that dentistry was practised in North Carolina earlier than 1833—certainly not before 1830.

Among the early practitioners were to be found men of culture and refinement, having had, in several instances, educational advantages sufficient to qualify them to ente any of the learned professions. In this respect the fathers of dentistry in this State would compare favorably with their successors, and, as a whole, are not equalled by the mem-

bers of the profession to-day. The practitioners of the thirties and forties labored under many disadvantages, as we view it, and encountered many difficulties unknown to us; but, notwithstanding all, they accomplished a great deal in their day—the more frugal among them being enabled to accumulate property and even nice competencies. It is due them that we consider their environments ere we criticise their methods of conducting practise, and to credit them with some ambition, as well as a due regard for humanity. They were governed by the same principles that actuate the rank and file of the profession to-day.

With all the drawbacks, the proficiency to which some of the early dentists in North Carolina attained was wonderful, especially in the art of filling teeth with gold. So expert were a few men in the State in the manipulation of gold foil, that attempts to restore contour, to a degree, were made by them. How well they succeeded is proven by isolated cases of smooth, well-polished fillings seen forty years or more after insertion. The cohesive properties of gold were then unknown, and the only reliance was soft or non-cohesive gold, anchored and impacted by the process of wedging. Others excelled in prosthetic or mechanical dentistry, which consisted almost entirely in making plates for artificial dentures from gold and silver. Specimens of that class of work from the hands of North Carolina dentists show exceptional skill, and are models of skill and neatness, surpassing, in many instances, much of the same class of work at the present day. Every dentist of any reputation whatever was owner of a rolling-mill with which the metals, gold and silver, were prepared for use as base plates for artificial dentures.

During the civil war, 1861-'65, it was with great difficulty and at enormous expense that dental materials could be obtained, especially gold foil.

Brown & Hape, gold-beaters, of Atlanta, Ga., did some work in their line, but there were few teeth filled with gold during that period. Drs. J. W. Hunter and B. F. Arrington planned jointly to secure an invoice of gold foil through blockade-runners plying between Wilmington, N. C., and Nassau, but that was an exceptional case. Amalgam was made from the filings from Mexican silver dollars.

Tin foil was the "stand-by," and there are tin fillings in teeth now, doing service, that were inserted during 1861-'65.

We have referred to that period of the history of dentistry in North Carolina in order to remind you that civilization has lived without what we would call dentistry. Could or would it do so now?

Those who made up the patrons of the earlier dentists were the wealthy and cultivated classes, whose confidence and esteem were enlisted because of the intelligence and high character of the average dentist of that period. Only a comparatively small portion of the population of North Carolina, as was the case in all slave-holding States, were able to pay the fees exacted by dentists for their services, which were exorbitant, com-

pared with the present. It was therefore necessary for the dentist to itinerate and travel over considerable territory to find employment.

WHEATON.

About the year 1834, Dr. Sterling Wheaton was a practitioner of dentistry in North Carolina, and located at Raleigh, the capital of the State. He was a man of culture and refinement, and was associated with and highly respected by the best men in the State, not only because of his attainments as a dentist, but for his social and other accomplishments. Just how long Dr. Wheaton engaged in practise at Raleigh is not definitely known, but he afterwards moved to Memphis, Tenn., to engage in other pursuits, and died at middle age, without having re-entered the profession. While residing in Raleigh, Dr. Wheaton became interested in a young man whom he occasionally employed about his premises in the capacity of a painter, and being favorably impressed with his sprightliness and ingenuity, he took him from his paint brush and ladder into his office as his assistant and student.

After arousing his ambition, he generously assisted him in his studies, which resulted in his completing a course in medicine and afterward in dentistry, and becoming not only the most prominent practitioner of dentistry, but the first graduate of his profession in North Carolina in 1840. This was

W. R. SCOTT, M. D., D. D. S.

Dr. Scott succeeded his friend, Dr. Weaton, in his practise at Raleigh, and was the recipient of the confidence of the entire community, both as a professional man and a good citizen. He possessed energy, ingenuity and common sense, the requisites of an efficient practitioner, and was considered one of the representatives of the advanced school of dental surgery at that time. He died suddenly in 1856

HOWLETT.

There were six graduates at the Baltimore College of Dental Surgery in 1843, and among the number was John W. Howlett, of Greensboro, N. C., who had been a practitioner of dentistry several years prior to this. He visited the large towns of the State and of Virginia and Tennessee. He is said to have been the roughest and yet the most efficient operator among his confrerés.

When *en route* to Omaha last August, as your representative to the National Dental Association, we met an aged lady, living in the State of Indiana, who informed us that Dr. Howlett had filled teeth for her when she was a young lady at Salem, N. C., and only a few years ago, when it became necessary to remove her teeth, which had become loosened, the result of the ravages of Pyorrhea Alveolaris, some of those same fillings were intact, and had served the purpose for which they were inserted many years before.

He was an inventive genius, and possessed the ability to make suitable instruments for performing operations as improved methods suggested themselves to him. He practised many years for the pupils of the Salem Female Academy, an institution of learning liberally patronized by all of the Southern States, and was regarded as equal to any dentist in the South at that time.

Among the many evidences of his skill and advanced ideas was a bridge constructed for Mr. Henry Leinbach, of Salem, N. C., in 1850. After removing the crowns and thoroughly preparing the roots for anchorage, wooden pegs of hard hickory were closely fitted in each root, just as pivot teeth were formerly inserted. Into the wooden posts, or pegs, he drilled a hole for gold pins, which served as anchorage to the bridge. The bridge itself was made of a half-round gold bar, to which each crown was soldered by its backing of gold. This bridge was worn with comfort and satisfaction for years, and was, in many respects, equal to those constructed at the present time.

He also invented and constructed an automatic mallet upon about the same principle as the "Snow and Lewis," but antedating their invention many years. It consisted of a metal tube, in which was a spiral spring, with a string attached to a hammer. By pulling the string the hammer was raised and imparted the blow to the plugger.

Dr. Howlett was a man of fine sense, though somewhat eccentric. He remarked a short time before his death that the introduction and use of rubber as base plates for artificial dentures had done more to bring dentistry into disrepute than all other agencies for evil combined.

He died at his home in Greensboro in 1871 or 1872, at an advanced age.

DR. E. R. HUBBARD.

Dr. E. R. Hubbard came from Virginia to Newbern, N. C., in 1835, and offered his professional services as a dentist to that community. He had obtained the degree of M. D., but recent efforts to ascertain the source whence it was conferred have been ineffectual. He was very reticent concerning his early history. Tradition has it that he left the shoemaker's bench to engage in the practise of dentistry, and it happened in this wise: It seems that he was often called upon to extract teeth, and one day a lady of prominence applied to him to have an offending tooth removed. He advised her to have it saved. She asked if he would undertake it. He replied that he would, and returning to the shop, informed his brother shoe-makers that henceforth he would practise dentistry, bidding them adieu.

From the time he began practise in North Carolina he was faithful and true, insisting at all times upon a rigid construction of professional ethics. Soon after entering the profession, so the story goes, he married a very charming and cultured lady, and that act, if anything was lacking, gave him the entreé to the best society that existed. It is said that

he was the first to advance the idea that an operator should sit and not stand at the chair, and he practised what he preached. Also, that he was the first man, in this part of the dental world, to use the mallet as an aid to filling teeth, which he invariably used in impacting the foils.

As an operator, he had no superior in his palmy days, and this applies to his prosthetic work as well.

Dr. Hubbard was said to be superbly handsome, and a man of ability and scholarly attainments, being a great reader and a close student.

He continued to practise up to the time of his death, which occurred at Newbern, September 10, 1883, at the age of seventy-four years.

Another most conspicuous figure in dentistry in North Carolina was

DR. WILLIAM F. BASON,

of Haw River, North Carolina, who, as an M. D., graduated in dentistry at the Baltimore College in 1846. He was, for those times, a well-equipped practitioner, and perhaps extended his field of labor over more territory than any man in the State.

His style of traveling was attractive, consisting of an up-to-date top buggy, a pair of spirited horses, and a negro driver, and, being an educated and cultured gentleman, he made a fine impression upon the class of people who patronized the dentists of those times. While not conspicuously progressive concerning the methods employed in the work he did, yet he maintained a high standard of professional attainments, and was regarded as a thoroughly conscientious man.

Having practised medicine awhile before engaging in dentistry, he did not hesitate to employ anæsthetics for the relief of pain—chloroform, ether, and later, nitrous oxide—and so was denominated a "merciful dentist."

We purchased his real estate in Salisbury, and when tearing down his old office building, there was found in the garret, and other secretive places, numerous unique devices, consisting of cog-wheels and light machinery, also electric batteries of different patterns, which would impress one with the idea that the doctor had not only worked to solve the problem of perpetual motion, but had in view labor-saving machines for dentists' use, such as the dental and surgical engines and the electric engine. That he was very ingenious goes without saying.

He practised throughout the State for forty-four years, maintaining his habit of visiting the cities and larger towns, his home office being in Salisbury.

We have been told by a patron of Dr. Bason's that he was two years getting a set of teeth for his wife, after the mouth was prepared—it being twelve months after the extraction of the teeth before he called to take the impression of the mouth, and one year thereafter he delivered the teeth. He was often absent from his office at Salisbury six months at a time. The doctor was a diligent collector, and amassed a considerable

fortune in his day. He died at Haw River, N. C., in 1885, at an advanced age.

RANSOM P. BESSENT,

of Davie county, N. C., began the practise of dentistry in 1845 or 1846, and traveled over several counties, mostly on horseback, with a scant supply of instruments in a pair of leather saddle-bags. After five or six years, going hither and thither, serving his patrons to the best of his ability, he had accumulated sufficient means to pay his way at the Baltimore College of Dental Surgery, where he graduated in the class of 1851.

He chose his field of labor in the western part of the State and in upper South Carolina, making his headquarters at Concord, N. C. He invented and had constructed the first portable chair and instrument-case combined. It was so arranged that it could be folded and strapped together, making a package about the size of a gentleman's ordinary traveling trunk. Within a few minutes after his arrival at a place he was ready with his outfit to serve his patients.

Dr. Bessent had a fair education for those days, and being a man of unusually fine presence and manner, he was very popular socially, even after he fell into the "sear and yellow leaf." He entered the Confederate army as an officer in 1862, and served throughout the war.

In 1865 he resumed practise at Salisbury, doing much work for Federal officers stationed there. In 1867 he went to Brooklyn, N. Y., expecting to make it his home, but after a short time became dissatisfied and returned to his office at Salisbury, visiting other places at stated times.

Having succeeded to his practise in Salisbury, we assume to be competent to judge his ability as a dentist, and desire to say that his work was uniformly *par excellence*, and, as an operator, was equal to the best. It has been our pleasure to examine regularly every year or half year teeth filled by Dr. Bessent all along from twenty to forty years ago, many of them in a state of preservation to-day. So long as he was physically able to conduct practise he kept abreast of the times, barring the use of the rubber dam, for which he had an aversion, claiming that it was both uncomfortable and filthy, and should never be used in a decent person's mouth. The work he could do in the mouth by the aid of napkins alone was wonderful. Seeing ahead the possibilities of the profession and the standard to which it must attain, he often expressed regret that he would not be permitted to share its greatness.

In 1891 his health failed, and he returned to the scene of his childhood, there to await the day of his dissolution.

He died in August, 1892, at the age of seventy-six years.

DR. THOMAS B. CARR.

came to North Carolina from New York State and located at Wilmington. For several years he practised medicine and dentistry jointly, then gave up medicine and devoted his time entirely to dentistry. He was

an unusually skillful and painstaking operator, and no less so in prosthetic work, excelling in the artistic manner in which he constructed and finished artificial dentures on gold base, stamping his initials (T. B. C.) on all plates made by him. Dr. Carr was a man of varied attainments and culture, and enjoyed the highest esteem and confidence of all the good people of his adopted home and wherever known in the State. His practise of dentistry in North Carolina extended over a period of thirty years, and in return for his services he became the possessor of a large amount of property.

He died in Clinton, N. C., in 1883, while on a visit to that place instructing the Masonic Lodge in the work, he having advanced to the highest degree of the order that could be conferred in this country.

E. B. ANDREWS,

of Charlotte, N. C., was a man of spotless character, and in point of intelligence above the average dentist of his day. We regret that efforts to learn more of his history were fruitless. From the pages of the annual announcement of the Baltimore College of Dental Surgery we learn that Dr. Andrews was an honorary graduate of that institution, conferred in 1851. From the same source we are advised that he bore the title of M. D. Relative to his capabilities as a dentist, we once heard Dr. Bessent say that he saw Dr. Andrews solder a full upper denture on a gold base by placing the invested piece in an old style blacksmith's forge, regulating the temperature by manipulating the old wooden bellows pole, and without the use of a blow-pipe in any stage of the work. That he excelled in that class of work there is no doubt. He was regarded as an exemplary man by all who knew him. He died during the civil war.

DR. B. F. ARRINGTON,

of Nash county, N. C., graduated in medicine and practised four years before entering the Dental College at Baltimore, from which he graduated in 1853, and located at Goldsboro, N. C., in 1854.

At the close of the civil war, owing to the poverty of the South and the uncertain and unsettled state of business, he relinquished practise for a time and engaged in business with the dental supply house of Samuel S. White, in Philadelphia. He afterwards resumed practise in the eastern part of the State. In the year 1890 he located at Asheville, N. C., and made a specialty of oral diseases, particularly that of Pyorrhea Alveolaris. In 1894 he returned to Goldsboro, where he has since conducted a practise.

Being a man of education, polish and unusual ability, he was very early regarded as the leading dentist in his section of the State. As an inventor and contributor to dental literature, he has exceeded in prominence the attainments of any of his confrerés in North Carolina, and

notwithstanding he has lived beyond the three score and ten limit, he is yet capable of wielding a trenchant pen when occasion demands.

Prominent among his inventions are the alloys bearing his name, and suitable instruments for manipulating the same, which have been in general use by the profession thirty years or more. His scalers for removing salivary calculus, enamel chisels and root pluggers are well adapted to their respective spheres, having been improved by him from time to time.

Dr. Arrington was a prominent member of the first dental society in the State in 1858, and has been a member of all similar organizations since. He was the prime mover in organizing the present North Carolina State Dental Society in 1875, and was honored with the first presidency. He is also a member of the Southern Dental Association.

SAMUEL MARTIN,

of Salem, N. C., graduated in medicine in Vermont in 1848, and while attending lectures there received private instruction in dentistry from a Dr. Smith. Returning to North Carolina, he practised dentistry till 1856, when he attended the Pennsylvania College of Dental Surgery and graduated from that institution. He practised at Salem regularly thereafter till 1867, when he engaged in other pursuits, living much of the time in the Western States. He was an eccentric man in some respects, but highly esteemed by his fellow-citizens wherever he resided. He died in Winston, N. C., January, 1899.

J. W. HUNTER.

In 1851, J. W. Hunter, of Forsythe county, N. C., entered the office of Dr. Samuel Martin, at Salem, and was with him as student and assistant till 1856, when he graduated at the Pennsylvania College of Dental Surgery. Being naturally ingenious, his industry and application soon placed him among the foremost operators in the State, and he very soon established a remunerative practise at Salem, N. C. The trustees of the famous Salem Female Academy reserved apartments in the school building, which were fitted up as a dental office for Dr. Hunter's exclusive use, and there he has, for a third of a century, rendered professional services to the pupils of the institution.

He was always of quiet, retiring habits and thoroughly conscientious in the discharge of all his duties. Although he lived in what was then an obscure town, twenty miles from a railroad, to him belongs the honor of having established, for the first time, the fact that in law dentistry is a specialty of medicine; that a dentist is a physician. During the civil war he was subjected to the requirements of the conscript laws of North Carolina, and an enrolling officer ordered him into service in the army. He claimed exemption (the law exempted practising physicians), and when the case came to trial it was decided in his favor by the Supreme

Court of the State, Chief Justice Richmond M. Pearson, who is believed to have been the ablest jurist that ever lived in North Carolina, rendering the opinion.

Although Dr. Hunter has measured up to the allotted term of life, he is still actively engaged in practise, surrounded by a sufficiency of this world's goods, the result of his own labors. He has been a member of all the State Dental Societies, twice President of this Society, and Treasurer of the same for a number of years. He has also been a member of the North Carolina State Board of Dental Examiners since its creation by law in 1879 till two years ago, when he resigned. He belongs to the Southern Dental Association.

DR. V. E. TURNER,

of Granville county, was a member of the graduating class at the Baltimore College of Dental Surgery in 1858, at the age of twenty-one years, and practised till 1861, when he entered the Confederate army as a lieutenant of infantry, and was afterward promoted to captain on the staff of General Walker of Virginia. In 1865 he resumed practise at Henderson, N. C., in his native county, and in 1871 moved to Raleigh, the capital of the State, where he commands a large patronage in and out of the city. Dr. Turner was one of the organizers of the North Carolina State Dental Society, and has twice presided over this body as its chief officer. He was among the first in the State to join the Southern Dental Association, and was elected President of the same in 1880. He was also a Vice-President of the American Dental Congress in 1887. Dr. Turner has been regularly elected to membership in the North Carolina State Dental Examining Board since its formation, is now, and has been for several years, Chairman of the Board. In 1892 he represented the State Examining Board at the annual meeting of the National Dental Examining Board at Niagara Falls, and since at Old Point, Va., and other meetings.

DR. W. C. BENBOW,

of Guilford county, N. C., graduated in denistry at Baltimore in 1855, located at Fayetteville, N. C., and practised till 1861, when he moved to Greensboro to engage in other lines, and has since been a prominent figure in business circles in that section of the State. When asked why he abandoned dentistry, he replied that he found it unprofitable. A sensible man is Dr. Benbow.

DR. W. H. HOFFMAN

completed the course at the Baltimore College of Dental Surgery in 1861, and returned to North Carolina to enter the Southern army, and became a member of General A. M. Scales' staff.

He enjoys the distinction of having combined patriotism with professional pursuits, so far as circumstances over which he had no control

admit, for, when not engaged in the business of inserting lead into his enemies, he was packing the more precious metals into the teeth of his soldier friends and companions.

Dr. Hoffman carried a kit of dental instruments with him throughout the war, and while not engaged in killing some one in his front he was practising the nearest approach to it upon some one in the rear. A sharpened stick, forked at one end, driven in the ground, for a head-rest, and a cracker-box or log placed against the stick for a seat, constituted his outfit of dental furniture. He was for several months a prisoner of war, and though compelled to leave behind, in his dear, sunny Southland, relatives, dear friends and companions in arms, we are told that that omnipresent kit of dental tools abided with him.

He was appointed Most Excellent Grand Dental Surgeon to the assembled throng at "Point Lookout," and did practise for those desiring his services. His revenue is said to have been rather meagre during that period, but the work he did served to "keep his hand in," and upon the cessation of hostilities he immediately engaged in practise at Charlotte, N. C., and did a thriving business so long as he remained in that city.

During the past ten years he has resided in Gastonia, N. C., living in affluence and luxury, and practising his profession when he so elects.

Dr. Hoffman has ever been held in high esteem by all who knew him, a consistent Christian gentleman and a fine dentist.

There were other worthy men among the number who practised dentistry in North Carolina from 1830 to 1865, and who were more or less prominent in the profession, but we have been unable to procure sufficient information and precise data concerning them to justify an extended notice of their lives and labors as dentists. It would seem that they are entitled to honorary mention, if nothing more, in an account of this character, and we would gladly have added other names to the list had not this paper been already too lengthy to prove of interest to you.

This brief history would be incomplete without reference to the dental organizations which had an existence within the period of which we write. It seems that there was but one, and that it was organized at Charlotte, N. C., in 1858.

Those who were present and participated were Drs. Andrews, of Charlotte; Hunter, of Salem; Arrington, of Goldsboro; Benbow, of Fayetteville, and others whose names have not been furnished us.

The meetings were held annually and were well attended until the breaking out of the war in 1861.

Fifty years hence we hope to take up the narrative where we now leave it, 1865, that is, if you will again honor us with the office of Essayist, more properly, historian, and then give to the world the fine points in the characters of the gentlemen present.

Respectfully submitted in lieu of the usual scientific production required of Essayist on accasions like this.

JAS. F. GRIFFITH, D. D. S.,
Salisbury, N. C.

DISCUSSION.

Dr. Carr said:

"I think that is one of the most valuable papers ever read before the Society. It is a historical paper, and I am glad indeed that Dr. Griffith has gone into the matter and given us the history of dentistry in North Carolina, and, on behalf of the North Carolina Dental Society, I want to extend thanks to him for his labors in that field. I hope he will be living fifty years hence to continue it."

Dr. Jones said:

"It seems to me a too valuable paper to be lost. I enjoyed the reading of it very much, and know every one present did. I think it is the most complete history of dentistry in North Carolina that I ever heard. It seems to be so true and accurate, in so far as I can judge, I think it would be well for the Society to preserve it."

The subject of "Operative Dentistry" was called. Dr. Keerans, Chairman of the Committee, read the following paper:

OPERATIVE DENTISTRY.

Mr. President and Members of the North Carolina State Dental Society:

When *caries* occur on any surface of the tooth the dentist should study carefully the conditions which brought it about, and should aim, in his operations, to so change those conditions that *caries* will not likely recur. We all make failures, some more, some less, and we should not permit ourselves to pass over any failure, whether our own or of some brother practitioner, without carefully and closely studying the particular reasons for that failure. The problems which come under our eye from day to day must be solved to avoid a repetition in the future. The dentist should cultivate the utmost delicacy of touch, gentleness and firmness, so as to impress upon his patient, at all times, the fact that he is giving the least possible discomfort commensurate with effective work, and that he has a thorough knowledge of the operation he is doing, thereby establishing confidence and cordial relations with the patient, and when this is once attained, he has won half the battle, and wonderful results will follow. Tact, kindness, the alleviation of pain when the patient is suffering, lack of deception and short sittings, all harmonize to the successful management of the patient, especially children.

In the consideration of the present subject, I shall not attempt to cover the field in its entirety. When a new patient comes to my office and puts him or herself in my care, if the teeth are stained or discolored, my first procedure is to remove all stain possible, and then I am in a position to make a thorough and satisfactory examination. If the teeth are in close contact, I invariably separate them by using cotton, rubber, wooden wedges or the separator, all of which have their advantages and disadvantages. When the case is adapted for cotton, and I can see my patient twice a day, I think this substance far more preferable, even if it does require more time, as it is the least uncomfortable to the patient. I use rubber dam when the cavity is in the least danger of becoming damp from the exudations of the mouth. In the subject under consideration there are certain features always to be our guide. They are the process of mastication, the nature and extent of the force used, together with the manner of its application in the communition of different food materials, resistance to the chemical action of the mouth, facility of introduction and consolidation, absence of all galvanic, chemical or vital action upon the teeth or the general system, absence of all heat or cold conducting property, shrinkage and proper instruments are fit subjects for careful observation in the preparation of cavities and the selections of the proper filling material. The fact is that the entire subject of operating dentistry resolves itself into the following summary: Manipulative skill on the part of the operator, tact in knowing how to control the different temperaments among our patients, the invariable use of the keenest, sharpest instruments, and the knowledge of the proper filling materials.

I have the following clinical cases to report, bearing on my subject. The first one of these I will now report. I am rather encroaching on the subject of dental surgery and prosthetic dentistry.

Some two and one-half years ago a gentleman about forty years of age came to my office for treatment. He informed me that he had been under the professional care of a physician for facial paralysis or neuralgia for quite a while, with no apparent change for the better, and that he desired me to take his case in hand. On making an examination of his mouth, I found he had lost the first, second and third left superior molars, the inferior first and second molars were in their normal position, but were in an unhealthy, diseased condition. I decided to extract the second molar, as its antagonist was gone. After drawing the tooth the pain in the left side of the face was mitigated to a certain extent, but the patient was not entirely relieved. There was a cavity in the anterior approximate surface, filled with a very large contour gold filling. The gum margin around the anterior lingual and posterior margin of the tooth was in a healthy condition and in its normal position, but found the gum had receded below the bifurcation of the roots on buccal portion of crown. Gum in a ragged, hypertrified condition and a blind abcess,

with its orifice at the bifurcation of the roots. I decided, after close inspection and study, that this tooth was the seat, or fountain-head, as it were, of the trouble. I removed the filling and made an application of "nerve fibre" to devitalize the nerve, washed out the abcess with peroxide of hydrogen, to thoroughly cleanse it, and made an application of 20 per cent. solution of formaline, to destroy what germs were lurking there, dismissed my patient and requested him to be back in twenty-four hours. On his second visit I found him suffering with a slight pain in the left side of his face. After opening into the pulp chamber, I removed the nerves, which I found in a fairly healthy condition, and proceeded to treat the abcess. It resisted my treatment for several days. On making a closer examination, I found tartar imbedded in the bifurcation and on buccal portion of the roots. After carefully removing same, I had no further trouble. I then filled the root canals with cement mixed with formaline and floss silk. I used the floss cut in small pieces, and mixed thoroughly, and dry as possible. The floss is used simply to hold the cement, in other words, its office is the same as hair in mortar. After filling the roots, I filled the crown with amalgam, dismissed my patient, and requested him to come back in a week from the day he was in my office, provided the tooth gave him no more trouble. On his return to my office, after questioning him closely, I found the pain had left his face entirely, and he voluntarily informed me that he felt better than he had for three years. The tooth being a mere shell, I placed a gold crown on. This has been a little over two years ago. The gum is in a perfectly healthy condition, no more recession, and the best of all, the patient is entirely relieved of pain.

I will now read the second case. On July 15th, 1892, a patient came into my office, and on making a close and thorough examination, I found her mouth in a very neglected state. The four superior and inferior permanent incisors were about two-thirds erupted; also her first molars. After thoroughly cleaning her teeth with pumice-stone and iodine (and I beg to state that pumice-stone, with a few drops of iodine, is the best preparation, to my knowledge, for cleaning decidious and permanent teeth, and perfectly harmless), I found the four superior incisors badly decayed on their approximate service and somewhat loose. After putting them in a healthy condition, with the proper preparation of the cavities, I filled them with oxyphosphate and continued to fill them from time to time, as the case required, until the teeth became hard. On October 15th and 29th, 1898, a little over six years after I first filled the teeth with oxyphosphate, I decided they were in a proper condition for gold, and proceeded to fill them in the usual way with cohesive gold foil. On February 8th, 1899, the patient came back to see me, saying: "Doctor, I wish you would please examine my teeth; something is wrong with one of them." On making an examination, I found her left superior central incisor alive, but thoroughly injected with red blood to such

an extent that the tooth was a bright red. There was no inflammation of the periosteum or swelling of the gums. The mouth was in a perfectly healthly condition and the tooth had given her absolutely no pain whatever from the beginning of the operation up to the present day. I used hot air to obtund the sensitiveness of the dentine; used no medicinal remedies at all. On April 7th I 'phoned for the young lady to come to my office, and I discovered that the tooth had turned from its original carmine color to a dark pink. On further questioning her, I found that it had not been the least uncomfortable, as far as pain was concerned. She admitted, however, that at times, of late, she could not detect any feeling in the tooth, but on tapping it with an instrument there was a slight uneasiness connected with it. I isolated the four superior incisors with the dam and tested each tooth separately with heat and cold, and on questioning her, she said there was no apparent feeling different from the others. When I first discovered the *tubuli* of the dentine, permeated with the red blood, I requested her to let me remove the fillings, but she objected most seriously, saying she preferred the discolored tooth to one being filled with oxyphosphate. My idea was to remove the gold fillings, devitalize the nerve and bleach it.

Now, gentlemen, this is my first experience in my professional career with this kind of procedure after filling, and I should be pleased to hear from you as to your diagnosis, treatment, etc. I have refrained from treating the aforesaid tooth till after this meeting.

E. P. Keerans.

DISCUSSION.

Dr. Everitt said the discussion of the particular point of "pink tooth" would come under the head of Office Practise.

The discussion of Incidents of Office Practise was here taken up, and Dr. Turner spoke of some interesting cases.

Dr. Ayer, in speaking of this pink tooth, said:

"I am under the impression it was caused from the cement, if the patient came back with the nerve alive and the tooth pink. It was either that or the gold filling that caused the death."

Dr. Carr said:

"In 1877 a gentleman came into my father's office. He had an upper molar which was pink, like the Doctor was speaking of. It was a tooth that my father had filled with gold a good many years before. My father told me to take the filling out. I did so, and treated it for two or three days with carbolic acid, and the color all disappeared. I mention

this to show that the nerve was alive. The fact that it is pink does not indicate that it is dead, but if the filling is removed and the tooth treated, you will find that this discoloration will disappear, and you can refill it with gold."

Dr. Parker spoke of finding a necrosed root of a bicuspid with a live nerve in it.

Dr. Everitt said he never saw but one tooth like the one Dr. Keerans referred to. That was in a case of a young lady suffering intensely with neuralgia one night, and when she arose next morning she discovered that her tooth had discolored during the night and become thoroughly pinkish.

Dr. Turner asked Dr. Keerans if, in the history of the case, there was not some violent blow on the tooth. He answered that there was not, that the tooth had not given the patient the least trouble, and this condition has existed since February, but during the time the tooth had changed from a dark red to a dark pink, and is getting brighter each day.

Dr. Turner thinks it a most extraordinary case; that in all of his experience, he has never met with or heard of such a case, and he does not think it will ever return to its normal color. He said he had had teeth to turn that color from blows, and he took the nerves out.

Dr. Holland said that he had never had but one or two cases of this kind, and they were caused from a blow, and had congestion of the pulp, and caused great suffering. He thinks it necessary to devitalize the pulp. If you get the history of the facts, he said, you will see that such cases are caused from some blow or something of the kind.

Dr. Turner described a remarkable case he had not long ago, a badly ulcerated tooth. He removed the filling and opened the root, and attempted to treat it, but the gentleman lived some distance away, and could not come to his office often, so he concluded to extract it. He said: "When I pulled the tooth I found only about half of the root with

the crown. It had a very ragged appearance, as though it had been broken. I then felt for the other part of the root, and pulled that, and when I observed it very closely, I found that the remaining half of the root had a live nerve in it. That is something that I have never been able to account for. He said he had no recollection of ever having received any blow, and the tooth never gave him any inconvenience until a few months before. The roots fitted together very nicely, but the root that was left had closed over entirely."

Dr. Spurgeon related an instance of a young man about fifteen years old being thrown from a horse and his tooth receiving a blow. It became discolored to a considerable extent, and indicated death of pulp. On opening nerve canal he met with a solid resistance, and going a little further, it began to get sensitive. He filled it to that point, and since it has been perfectly comfortable. The tooth must have been broken in two by this fall. It grew together, and one part of the nerve died and the other did not.

Dr. Wyche gave an instance where a root had been filled with gold. He said: "The tooth had been crowned, and the root had been drilled through on the anterior side, trying to get the filling out, I suppose. The patient came to my office several times. Finally the root split open and would not hold a crown any longer. I put another patient's tooth in, and, so far as I know, it is doing well. I never fill the root of a tooth with gold or amalgam. The man that filled that thought it would never have to be removed. It was filled to the end of the root with gold. I fill roots with gutta-percha."

Dr. H. V. Horton related a case where a lady came into his office, complaining that her plate would not stay up. Upon examination, he found and extracted something like a little tooth which had erupted. She had been wearing the plate about twenty years.

Dr. Osborne's demonstration of some casts, on motion, was made a special order for to-morrow, following Voluntary Papers.

Adjourned to meet Thursday at 3 o'clock P. M.

SECOND DAY—AFTERNOON SESSION.

The Society met at 3 o'clock.

Dr. Keerans offered the name of Dr. S. O. Brooks for membership in the Society. Application of E. A. Crawford was also received.

Dr. D. T. Smithwick introduced a resolution pledging the dentists of the State to care for the teeth of the inmates of the Orphanages of the State, and requesting the Corporation Commission to allow the railroads to grant free transportation to dentists while engaged in such charitable work. Dr. Smithwick stated that the railroads had already signified their willingness to grant such transportation, that the S. S. White Dental Manufacturing Company was willing to donate chairs, and that many dentists were willing to give a portion of their time each year to such work.

Dr. Everitt and Dr. Horton expressed themselves as being heartily in favor of the resolution.

Dr. Davis said that he lived in a town where one of the Orphanages is located, and that he had done a great deal of work among them, and it was very much appreciated.

The resolution was adopted unanimously.

On motion, the Society adjourned for fifteen seconds to consider the application of new members.

The Society was called to order, and the names of Drs. S. O. Brooks and E. A. Crawford were ballotted on and unanimously elected.

Dr. H. V. Horton read the report of the Committee on the President's Address, recommending its publication. The report was adopted.

The hour for Voluntary Papers having arrived, Dr. Liverman introduced Dr. Chapple, of Atlanta, who preceded his paper with the following remarks: "I had almost decided not to attempt to read a paper, for the reason that on yesterday Dr. Liverman was kind enough to speak very complimentary of myself, and led you to believe that I had something elaborate to give you. I have not, as you gentlemen will discover for yourselves. The paper is purely suggestive. It may be proper for me to add, too, that I had the honor of reading this paper at the Mississippi meeting, about three weeks ago."

WHERE ARE WE AT?

Since 1839, when it may be said dentistry received her first recognition as a profession, her career has been marked by one continuous ovation from continent to continent, until to-day there is no one so bold as to dispute her claims for the highest place among the arts and sciences. Indeed, her marvelous progress has been signalized by such rapid strides as to afford a prolific theme for the eulogist and the historian.

As we are in no sense a pessimist, we are not here to discredit the achievements of the past nor to check the enthusiasm of the present. But a retrospection of recent events has irresistibly pressed the question upon us: As a profession, presumed to be based upon scientific principles, where are we at?

It is no reflection upon the skill or intelligence of the mariner if, every twenty-four hours, he takes his latitude and longitude to note his exact position upon the high seas; and none will deny that the successful business man is the one who makes a careful inventory of his stock twice a year to determine whether he is debtor or creditor to the world. So, therefore, with your patient indulgence, in commercial parlance, we shall "take stock," the better to determine our true status as a profession.

Law and medicine are founded upon certain basic principles, upon which has been constructed a ramifying system of practise in strict harmony with the foundation principles. No one denies this proposition. But can as much be said of dentistry?

In the realm of microscopic research, touching the question of strictly

dental hystology and ætiology, are we agreed fully upon all the claims set forth? While Black, Miller and Williams are not appreciably at variance in their deductions, yet there is a large element who accept the conclusions of these gentlemen "*cum grano salis*," and not a few deny them altogether.

Did not Leon Williams, two years ago, come three thousand miles to give first to his mother country the results of a most elaborate investigation? And while the profession was felicitating itself that the ætiology of dental decay was established beyond doubt, and that we could boast of at least *one* basic principle, Hart crosses a continent, armed with data and plausible proof, denying Williams' conclusions.

We talk glibly and knowingly about dental fibrillæ, while the microscopists, some of them, deny their existence. So, after sixty years of professional life, we are confronted with the fact that we are in comparative ignorance as to the true hystology of tooth structure and the ætiology of dental decay!

The nearest approach to the crystallization of generally accepted principles, over which there is little contention, is to be found in dental prosthetics. But in the domain of that most vital branch of dental art, operative dentistry, it is simply appalling to note the wide diversity of opinion and practise, and the total absence of anything approximating even the semblance of a basic principle.

If we heed the arbitrary *dictum* of a respectably large minority, we must confess to the world that we have only one permanent filling material. On the other hand, when Flagg gave utterance to his belief that in proportion that a tooth needed saving gold was least indicated, he was overwhelmed with an avalanche of adverse criticism—the advocates of gold claiming for it *par excellence* over everything else.

Thus it will be seen that there is no well-established principle governing the selection of any one material for different conditions. Every man is a law unto himself.

At the Georgia meeting last year, Dr. J. Y. Crawford, discussing amalgam, said (October *Items of Interest*, pages 772 and 773): "In my career I have lived to see some other fallacies in dental surgery give way, but this, unfortunately, survives." "I tell you this thing of amalgam is hurtful to our profession *and to the human family*." And again: "The presence of amalgam is injurious to the teeth." Having been employed more liberally, perhaps, than any other one material for over a century, we are confronted with this remarkable declaration. From time immemorial we admit amalgam has occupied somewhat of a doubtful position, and has been roundly denounced from every quarter, but we would respectfully submit, if it is a "fallacy," we should know it to be such beyond doubt. If it is "hurtful to the profession and the human family" it calls for the most rigid and thorough investigation, not only from a dental but a legal standpoint as well, and if "the presence of

amalgam is injurious to the teeth," thousands of intelligent dentists stand convicted of willful malpractice, and are liable to a criminal prosecution in the courts of the country.

We shall not deny that amalgam is a "fallacy," "hurtful both to the profession and the human family," and is "injurious to the teeth," but we have a right to demand, and in the name of the "profession" and the "human family," we *do* demand, that Dr. Crawford produce the *proof!* Fortunately, however, for the "profession" and the "human family," our distinguished friend does not constitute the court and jury on this question.

It is to be noted that those who were most conspicuous in denying Flagg's position on amalgam are to-day proclaiming its virtues. Nor has its possible injurious effect ever been seriously questioned before, except by the homeopathists—a school of medicine which has always been violently opposed to mercury in any form.

Aaron Burr's definition of law, viz.: "That which is plausibly asserted and forcibly maintained," has no place in a dental dictionary. To assert an opinion with much *physical* effort is neither argument, data or proof!

Mercury and iodide of potash are specifics in the treatment of syphilis the world over—by the alopathic school, at least. If any appreciable number of representative practitioners were to declare these preparations a "fallacy," "hurtful to the profession and the human family," and destroyed life, would the profession quietly submit to the charge without probing for the truth?

How and *what* to fill teeth with is as much in the realm of speculation and chaos to-day as when the profession took its first position in the ranks of the arts and sciences.

The lack of well-settled, basic principles not only obtains with reference to the proper mechanical treatment of decay, but to other oral lesions as well. How many are agreed as to the proper treatment of the first permanent molars? If one of them *must* be removed, shall the remaining three be removed also? Why is it there is no absolutely reliable data and comparatively safe rules in dealing with such cases?

Ten years ago there was a keen but laudable rivalry as to who could cap pulp successfully, but the practise has almost become an obsolete one, giving place to indiscriminate devitalization.

There is no question but what this practise, in judicious and painstaking hands, was reasonably successful, but why its discontinuance? Was it upon the hypothesis that climatic conditions, or immediate environment or temperament, or all of these, were important factors to be considered, the local conditions being favorable? Why is it, that in sixty years we have no statistics disproving the truth or falsity of this assumption? If, in general surgery, the operation for appendicitis was attended with fatal results in the first years of its practise, the intelligent persistence with which it has been pursued of late years, has rendered it a comparatively safe operation, and we venture to say that quite reliable

statistics can be had showing the percentage of cures as compared with the failures. Why is it we cannot turn to *our* libraries and bring forth a volume containing a record of pulp-capping—such a record, indeed, as would constitute a basis for intelligent procedure?

As to what constitutes the best methods for the treatment of septic conditions of and the filling of root canals, there is perhaps a greater diversity of opinion than obtains on all other disputed points of practise combined. The profession is surely passing through an antiseptic era, and we would not depreciate the efforts made in this direction if there were any hope for a definite, settled conclusion as to which of the many different preparations gave promise of permanent recognition, for in the light of past experience we have no assurance that wholesale experimentation will likely result in any very reliable data, such as would be generally accepted as *basic* in character.

Of the filling materials for root canals there are a score of advocates for every variety employed for the purpose. And that each one does show good results there is no doubt. But are these good results attributable to the particular material employed in the filling, or to a thorough asepsis, or both? Where can we turn for proof, approximating proof, of those disputed points in practise?

Since Riggs first called attention to Pyorrhea, an oral lesion, which, next to *caries*, is so destructive to the dental organism, what appreciable advance has been made into its ætiology and treatment? Are any two agreed respecting its ætiology? And is it not a fact that thousands not only profess ignorance as to its course, but deny that it is amenable to treatment at all? The theories advanced on the snbject may or may not be correct. The widespread character of this insidious disease should awaken the profession on the subject It is a reflection upon us of no small significance when we say to its victims, which, according to recent observations, constitute twenty-five per cent. of the population, "Extraction is the best we can do for you."

It is safe to affirm that nine-tenths of dentistry is purely mechanical. It is equally safe to affirm that in the broad field of mechanics we have fewer established rules and data than any of the scientific arts.

Black, Miller and Williams evidently realized the truth of this humiliating fact when they undertook to develop and make definite certain underlying principles in dental microscopy and dental mechanics. But the "doubting Thomases" sprung up, like mushrooms in a night, and have so violently arraigned their deductions as to completely paralyze the enthusiam of those seekers for basic principles, and to make them feel that even their own figures had played them false!

As we have had occasion to say elsewhere, and which we would emphasize here, "Let us stop denying *this* and denying *that*, until we can march boldly up to the altar of science, with our contribution in one hand, accompanied with the indisputable proof in the other.

J. A. CHAPPLE, D. D S.

DISCUSSION.

Dr. Liverman said:

"I want to thank Dr. Chapple for his paper, and I am sure that the Society will endorse what I said yesterday, since they have heard the reading of the paper."

He said that during the eleven years that he has been a member of the Society, this paper had more thought in it than any he had ever heard read before the North Carolina Dental Society.

He then spoke of his rule in the practise of filling teeth, that he never knew what kind of filling he was going to use until he had prepared the cavity. He does not believe that the profession has yet found a panacea for fillings in dentistry, but thinks the time not far distant when they can find a filling that will look like the natural tooth, and that they will have established some basic principles to stand upon and they will have a filling material that will reach their loftiest ideals in operative dentistry.

Dr. Cowarden said:

"It is true, as Dr. Chapple calls it, a 'suggestive paper,' it is fertile with suggestions. The slang phrase may be properly used in this connection, 'We are off our base.' The Doctor refers to the basic principles. We all lack data on this subject. He referred to the medical profession as being scientific. The medical profession is not much more scientific than the dental profession. However, I believe in the last eight or ten years the medical profession has awakened to the fact that there is a basic principle upon which they must stand in order to view this pathological data in the proper light."

Dr. Cowarden went on to show that the permanency of fillings was due to the patient's health, not the fitness of the filling of the tooth. In some cases a filling would wash out and be gone in two or three months, whereas in other cases it would be perfectly good for twelve years, owing to the condition of the patient's health. He spoke of some amalgam fillings that had been in his mouth for twenty-

eight years, and are doing as good service to-day as when they were put in.

Dr. Ayer said he was not a scientific man, but he thought science and experience ought to go together, and we ought first to find out the cause of this degeneration in the teeth, dated from our ancestors, and then find a better filling material.

Dr. Harris, Dr. Parker and Dr. Griffith also discussed the paper.

Dr. Thos. P. Hinman read the following paper:

PRACTICAL HINTS FOR EVERY-DAY USE.

Mr. President and Members of the North Carolina State Dental Society:

My paper is entitled "Practical Hints for Every day Use." I do not claim originality for any of the methods herein stated, but have found them of great value to me, and give them to you, hoping they may serve you to some good purpose.

When it is desirous to keep the mouth dry for filling or setting bridge-work a pledget of cotton about twice the size of the thumb should be placed over the mouth of Steno's duct, on both sides, and when the cheek is allowed to fall against the gum this compresses the mouth of the duct and stops the flow of the saliva. Then a napkin should be twisted in the form of a rope and placed round the tooth to be kept dry. If the rubber dam clamp is used to hold the napkin in place both hands are left free for any operation.

In the application of Pyrozone to the roots of teeth, as well as to other cavities, nothing equals the little minim syringe with platinum point. The only alteration I make is to tie the rubber bulb on the glass barrels with a piece of ligature silk; this prevents leakage when pressing on the bulb; it is also a very inexpensive syringe.

A simple cavity lining is made by dissolving gum mastic in chloroform. I use this lining before filling with amalgam; it prevents discoloration and also gives immunity to thermal change.

Where the nerve is nearly exposed and it is desirous to fill with cement a lining of this preparation prevents pain from the acid on the ends of the tubuli.

A very simple way of bleaching is to cut a cavity in the tooth, so as to remove all the paddle portion of the nerve, if the tooth be an incisor, then introduce twenty-five per cent. Pyrozone, carefully sealing with a small pledget of cotton, changing this application every day, and in a few days the tooth will be restored to its normal color. When an opera-

tion of this description has been completed, and after the application of the rubber dam and the tooth is perfectly dry, the cavity should be saturated with a thin solution of the cavity lining previously spoken of. Hot air is then introduced in the cavity and the chloroform evaporated; the tubuli of the dentine take up the gum mastic. This process is repeated several times until the tubuli are thoroughly saturated, then the tooth is filled with white cement. I have had no return of discoloration from following this method.

If your cement sets too slowly add a drop of distilled water to the liquid, not more than four drops should be added to one bottle

A simple way of removing a live nerve is to apply the rubber dam, remove the *debris* from the cavity, place in the cavity a pellet of cotton saturated with crystal carbolic acid, then a piece of yellow wax just to fit the cavity, and with the finger create enough pressure to force the carbolic acid into the live nerve. If this be done properly and carefully it will not create pain and the nerve can be removed painlessly. The severe hemorrhage following this treatment can be easily stopped by the use of three per cent. Pyrozone.

In the treatment of Pyorrhœa the greatest amount of my success is due to the use of concentrated lactic acid, used in the following manner: After the calculus has been carefully removed with suitable instruments, the pockets are then washed out with a solution of three per cent. Pyrozone, using the minim syringe. The point of the syringe should be carefully carried to the bottom of the pockets, and then by pressing the bulb the Pyrozone will force out all the pus or loose pieces of calculus. After this the lactic acid is used in the same way, carefully running the point of the syringe down the sides of the pocket to the bottom. Pressing the bulb, the syringe is carefully withdrawn, the lactic acid dissolving the remaining portions of calculus, as well as cauterizing the diseased membranes surrounding the tooth, thereby setting up healthy granulations.

I then prescribe Glyco Thymoline one part, water four parts. This solution should be used three or four times a day, as hot as can be borne in the mouth. The use of all tooth-powders should be prohibited, as they are injurious to tender gums.

Philips' Milk of Magnesia is prescribed to be used before retiring at night, and if the teeth are sensitive to heat or cold, it should be used after each meal. If the gums remain congested, and do not yield to treatment as readily as desired, massage, with the ball of the finger, has proven very beneficial in many cases. The friction produced stimulates the capillaries and relieves the congestion.

Where the patient is suffering from the formation of acute abscess the following is prescribed: Calcium Sulphid, tenth of a grain dose, one pellet every two hours; Amonol, five-grain dose, one every hour for three

hours. This, as a rule, will prevent the formation, or will reduce the pain so much as to make it bearable.

When your patients are suffering with chapped lips or fever-blisters you need not suspend operations, but carefully apply Resinol to the lips and in a few minutes the lips will be soft and pliable, and you can proceed with your work as though the lips were perfectly healthy.

THOS. P. HINMAN.

Discussed by Drs. Parker, D. L. James and W. B. Ramsey.

Dr. F. S. Harris read the following paper:

CONSCIENTIOUSNESS IN DAILY PRACTISE.

It is not my design to read you a homily on conscience. I trust we do not need it—certainly not more than other trades and professions. I am not of those who advocate different measures or standards of conscience for different occupations or for individual actions of men.

Right is right and wrong is wrong, though there may be varied interpretations of right and wrong. There are certain principles that govern these things, and it is not the subject of whim or of passing fancy. Conscientiousness is called into exercise in actual dealing with our fellow-man, and hence is not merely an abstract idea. It is wrought out in concrete forms and finds expression in our daily dealings.

While, as I said, I abjure any differing measure or standard, yet there are peculiar relations which call some to peculiar exercise of this faculty, because light on the matter in hand is mostly lodged in one party to the transaction. A science like ours, requiring peculiar qualities of perception, both technical and tactical, devolves upon us peculiar responsibilities in the exercise of conscientiousness. Our patrons, as it were, in our own hands, trustful and confiding, are obliged many times to throw themselves on our mercy, and no true man will abuse this confidence. But not all are trustful and confiding; some are of suspicious nature, and believe us to be a set of robbers, and here the situation is a trying one. We feel constrained to get even with those who would not hesitate to beat us out of an honest fee if they could. Imagining themselves quite smart, and up to all the tricks, we feel like taking them down a bit. However, none of these things should move us. We should meet them with the utmost firmness, candor and kindness, and they will soon learn there is a dignity about our profession that removes it far above an ordinary trade. Barter and sale are all right along commercial lines, but our wares are not of the shop kind, and we have no bargain-counters.

One of the greatest foes to conscientiousness, as I conceive it, is laziness. Weakness of flesh and laggardliness of spirit sometimes tempt us

to slight our work, and we do not trace out lesions to their full extent, that we may eliminate every element of weakness, hoping that it may do well somehow. But they will by and by return to vex us, since we cannot, as is sometimes said of the other doctors, bury our failures. Deal honestly with yourself and the patient will reap the benefit of your honest dealing also. Would it be insulting to hint that sometimes the temptation comes to advise removal of teeth that might be serviceable, because, forsooth, it would be easier to make the restoration with the shop-made article, and, as a sop to your conscience, you will say, "Well, it will cost the patient less!" Again, you would allow yourself to float with the craze, and find yourself, if you do ever come to yourself, prostituting the profession in descending to the glare and glitter of the tooth jeweler. Your crowns, highly polished, reflecting from the front of the mouth a taste decidedly unpolished, because, forsooth, as you whisper to your conscience, "They would have them, and if I don't make them, the other fellow will." A properly cultivated conscientiousness will prevent such prostitution of art for the sake of the money that is in it, or for the saving of time, or to cover up our inability to do better work.

Conscientiousness would certainly demand that we speak the truth, if not the whole truth; and that we will not lie to children about an extraction or other operation not hurting. We want to win their confidence by acting with all kindness and patience, promising them that you will hurt as little as poss ble, and telling them that you expect them to help you make a success of the work.

Conscientiousness would impel you to not charge every time in accordance with the exertion put forth, if you find there will not much benefit accrue from the operation. It will touch your elbow and make you hesitate and desist when about to pull out the other fellow's fillings, which have done yeoman service for thirty years, to substitute your own, upon the plea that the margins look discolored, filling soft, etc. "You should have one built like this." Conscientiousness will help us to remove the beam from our own eye and to quite overlook the mote in our brother's eye. At the same time it will give us the firmness to warn our patients against charlatanism, and to inform them if they have been their unsuspecting victims.

Conscientiousness, fair-mindedness, will teach us the dishonesty of charging more than a reasonable fee because we can get it, though the salve may be offered that we will give some other person the benefit of it. It will remind us to favor real merit with concessions in fees, even unsought, where pecuniary circumstances are limited, and will make us do it with delicacy, and not as throwing a crust down from our higher position. It will give you the manhood to acknowledge your inability to perform a certain special operation, or to advise a course different from what your judgment dictates, without first explaining to your patient and referring him to one capable of meeting the demands of the case.

It will say many times, "Stay thy hands," when about to insert gold in the teeth of the very young, where enamel fusion has not been thoroughly accomplished; urged though you may be by parent, child or guardian, you will not regard additional enhancement of fee as weighing with best judgment in such matters—even though they may hie them right out of your shop to the other fellow, who always gives them what they want. You will not allow, on account of additional vexatious delay and trouble, an abscessed tooth to remain untreated while inserting a crown, because the patient has not complained, or, at most, has only said that sometimes there is a little gum-boil there, but it does not give me any special trouble; it comes up in a day, breaks, discharges and then disappears.

Conscientiousness on your part will overcome that tendency to criticise a brother practitioner by innuendo, or it may be only the supercilious lifting of the eyebrow, by removing and replacing his work, etc. We owe our best service, and then the world (our patients) will owe us a living, and they will pay the debt. Let each operation, however simple, receive our best thought and care, and we will by and by lift ourselves above the fear of competition. Let our own keen sense of right and justice dictate, rather than what our competitor would charge, and how well, rather than how much, be our motto. Do not be so dominated by the fear that you will be considered blundering and slow if you are a little painstaking. Do not be afraid to acknowledge failure in an operation, and hope that that rocky filling will stay in somehow. If it would be too much to expect, or too exhausting to renew at once, make an early convenient appointment, profit by your former failure, and give the patient the benefit of your highest and most artistic skill. Make a careful record of all your operation—you owe it to yourself and to your patient. Oftentimes a patient comes for you to replace, as he says, one of your fillings put in some time back. Bring forward your record, and right before the patient examine whether you are chargeable with the failure. Personally I have saved much by this course.

I wish here to endorse and emphasize our worthy President's remarks in his very thoughtful address, concerning the personal habits of the dentist. They should be irreproachable. The indulgence in intoxicating liquors, and even chewing and smoking tobacco, should be strictly abjured, though justified by some on the plea that the patient is, many times, uncleanly, and we must have some protection, some offset. I have in mind now one of our members, most skillful in the technics of the profession, and one to whom our younger members look for valuable counsel, but his influence has ever been handicapped by unbecoming personal indulgences.

I have seen this gentleman oftentimes, in the midst of an operation, call upon the patient to "Pit!" "Pit!" his chin the while elevated at an angle of about forty-five degrees. The cause of this singular enunciation

and unusual elevation is obvious, and it must ever be disgusting to a patient of refined and delicate sensibilities. Not all patients are uncleanly; many of them are irreproachable, and they have their rights. Besides, the highest conscientiousness would demand that we be irreproachable in habit, in conduct and in thought.

There is another phase of this question of which I would like to speak. Some of us have, it may be, young men associated with us looking to entering the profession at sometime; and while we should be mostly disposed toward those looking our way, we should have the nerve to advise candidly with these young men, and when we fail to recognize in them qualities that would indicate their fitness to become candidates for a profession that rightly demands high qualities of mind and of morals, as well as a natural bent towards mechanics and the fine arts, we should kindly advise them to relinquish the idea and to look about for something that would promise better returns. And in using this term, I do not mean simply the coin of the realm, but the answer of a good conscience that we are best serving the purpose of our creation towards God and our fellow-man. Conscious, as I am, of my own infirmities, I know that such a course is right, and it is not only right here, but the same idea extends to the dental colleges and to their obvious duty in this regard. Some of these should have a higher standard of admission, or at least should come fully up to the standard set forth in the prospectus. We know that some of these institutions open their doors too readily—and I mean both doors—the door to take in and the door to turn out—and this is in evidence every year before all the Examining Boards of our State Dental Societies. Good, honest, honorable young men, because of laxness along this line, pass, though they may by dint of hard work and good luck and a little charity, and will be handicapped all their lives because of their deficiency in education, even in the elementary branches of English, to say nothing of the Latin and other languages from which our technical terms are so largely derived.

The American nation makes boast of her free institutions, but some safeguards must be thrown about those that aspire to the dignity of the learned professions.

Now a word to those who are already engaged in the practise of our honored specialty. It behooves us to be leaders in these things by keeping to the forefront, not lazily settling down on a pseudo reputation, or the assumption of a cockneyed dignity, but prosecuting our studies, keeping in touch with the best thought in science, art and literature, and contributing the product of our research to our Society meetings, thus making them the occasions of real pleasure and profit.

Oh, in this workaday world of ours, had we more of this principle between men, how much better it would be. God would see in you a specimen of His noblest handiwork. A clientele would grow up about you ready, every one, to swear by you because they know you are an

honest man, and they feel that they get value received, and you do not have to change your location because of your questionable methods.

Conscientiousness is so entwined with self-interest it would seem strange that its exercise would ever have to be urged, and that we would ever have to apply the spur to make it sensitive.

Finally, brethren, it is nothing more nor less than the old golden rule enunciated by the Man of Calvary, "Do unto others as you would have others do unto you." Only be true to yourself, your higher self, and the whole problem is solved. In the language of the immortal Bard of Avon, "First to thine own self be true, and it follows on as the night the day thou cans't not then be false to any man." F. S. HARRIS.

DISCUSSION.

Dr. Rominger said:

"I would like to express my hearty endorsement of that paper—a paper full of thought and good suggestions. I remember very well when I was in college, Dr. Mangum said, 'Young gentlemen, when you enter your office and start out in your professional career, make it a rule to satisfy your own conscience in whatever you do.' That lodged well in my heart and mind, and it has been before me in my professional life, and has been one of the safeguards in my daily practise. Any man can afford to honestly fail, but no man can afford to dishonestly succeed. It is always right to do right, and when children come into our office I do not believe we gain anything by lying to them in the beginning. To illustrate: Some time ago a gentleman brought his boy, eight or ten years old, to my office to have a tooth extracted. The little fellow began crying, and he said, 'Hush, it won't hurt.' (But he didn't understand psychology). I took the little fellow into my office and closed the door, and said: 'Has this tooth been troubling you?' 'Yes.' 'Been aching?' 'Yes.' 'Has it kept you from sleeping?' 'Yes.' 'If it stays there it will keep hurting you. Aren't you man enough to have it pulled out?' 'Yes.' His tears had all dried away by that time. I said: 'It won't hurt you as bad as you think it will. I will take it out as carefully as I can.' The boy never hollowed or rebelled at all, and the tooth was a very large molar. I believe 'honesty is the best policy,' and that conscientiousness will pay us always.

"There is nothing that dignifies and elevates our profession more than to receive into it men of character and men of attainments. There are many of us here who feel our inability to cope with questions because of the deficiency in our early training. Our preceptors have received us with encouraging words, when they should have discouraged us. I remember taking issue with one of the college professors when he said he would rather take a man from the cornfield than take a man from the

dental office. I said a pupil who had served an apprenticeship in an office two years is far better qualified to take in the teaching of a college than one taken right from the cornfield, and the man that says otherwise is killing the life of a college. We, as men who are in the profession, stand at the front door, so to speak, and it is our privilege to say whether or not such a person should enter, not that we care to debar anybody from the profession, but there are men whom it would be a curse to have, because they are unqualified, and they would not make a success."

Dr. R. H. Jones said:

"I want to express my appreciation of the paper read by Dr. Harris and commend its sentiments. We cannot do that by our patrons who trust themselves to our care, we cannot do them the service that we ought to render them without that precept and following it strictly. 'Honesty is the best policy,' and 'it is always right to do right,' as the brother has said, whether it is policy to do it or not. For a dentist to be successful he must be conscientious.

"I also endorse what brother Rominger has said about education. I think sometimes we do encourage young men to go into the profession that should not be encouraged. I think it is much better just to say to them that they are not fitted for it. On the whole, the paper that Dr. Harris has read will do us all good, old as well as young."

Dr. Ayer emphasized the point that we should be charitable to the other fellow. Said when he was at college he got the idea that they knew it all and the old men were fogies, but when he compares some of his work with that done years ago, he sees wherein he was wrong. He says he has found out that it does not pay to run down other dentists.

Dr. Griffith said if he could place his hand on the head of one of his professional friends in this assembly, and say, "Here is a man described by Dr. Harris," he would expect to see a chariot of fire come down to take him up to heaven. While every word he said was true, he said there would be no money in it to a dentist.

Dr. Chapple said he would despise himself if he did not endorse this paper; that while we might all be good church members, as the ministers say, "we must have a warming

up." He says they fall from grace, and need a revival sometimes, and this paper is a reminder to him, and has helped him.

Dr. Holland said: "I want to heartily endorse the paper of Dr. Harris in many respects, and especially the remarks that have been made upon it in regard to dental education. The strongest plank in the platform of education is morality." Said he hoped to live to see the day when they would get reputable, moral young men through the colleges with more than a cornfield education, and it is the duty of the profession to select such moral young men to send to college from their various communities.

Dr. Cowarden said that he did not like, as a rule, to compliment papers read before societies, but he had to say in regard to this paper that no higher compliment that he knew of could be paid it than to say if he were a member of this Society that he would make a motion that this paper be printed and read before the Society at its annual meeting for the benefit of the younger members of the profession who enter year after year. He said the paper was the embodiment of truths or principles that he had tried to inculcate in his teaching in the last five years. "In performing any duties for your patients, perform that duty as though the eyes of that patient were inverted, and knew what you were doing as well as you know yourself. If you do that, success will as surely come to you as the sun will rise on the morrow." Dr. Holland's remark as to the education of young men is along the right line. Colleges cannot get, as a rule, the right sort of men unless the profession will send them. As a rule, most of the young men come from offices, or from the recommendation of some practitioner to study dentistry. These practitioners are really in a better position to know the fitness of these young men, their lives and families, their environments, whether they are fit men from every standpoint to become pro-

fessional men, and I want to second what he has said by asking these men of the profession to look to that in the future, and assist all the colleges in getting better material.

The subject was passed.

A recess of half an hour was taken to study some microscopic specimens by Dr. L. M. Cowarden, which were very much enjoyed by the Society.

Dr. J. C. Osborne showed some specimens of an original crown attached with amalgam. This crown seems to possess many advantages as being a permanent, practical crown.

Dr. R. H. Jones moved that the election of officers be held to-morrow morning at 9 o'clock. Carried.

On motion, Dr. C. L. Alexander's exhibition of drawings was made a special order immediately following the election of officers.

Dr. Rominger read the following paper on Oral Surgery:

ORAL SURGERY.

Mr. President and Gentlemen:

Give you heed to a dissertation on Oral Surgery. Come near to the clinic-room, and let me describe it before you enter. See you that animal in human form that stands in the range of your occular scrutiny? It is the male homo, and just above the oracular opening you will discover a thickly studded grove called, in common vernacular, a moustache, which furnishes shade and ornament for the portal, and also to turn aside the fetid odors of the oft neglected chamber from the olfactory openings which present themselves just above the grove.

Now, in the female the grove is *always* wanting, and the fetid odors which arise from neglect and the stink-pot condition of tobacco users, so often found in males, is also supposed to be absent, and we generally find Arabian zephyrs gently floating o'er the white plains and undulating approaches to the female oral cavity This is oriental imagery, and is taken from the visit of Balkis, the Queen of Sheba, when she visited Solomon with her long train of camels, bearing spicery and perfumes, the aroma of which could be scented for miles, and the perfume of which could be perceived for hours before she arrived.

But we have digressed. The oral cavity, or clinic-room, is provided

with two flexible doors, which open and close noiselessly, or with great or little fuss, at will. Behind these doors stand two colonades of polished ivory, curving in regular line, and receding on each side as you approach the most convex part of the dual curves. They stand one above the other, as stalactites and stalagmites, having also the capacity of articulating upon each other with great nicety and much precision. The inner walls of the chamber are ruby and of great delicacy and perfection of mechanism, while the dome is garnet and beautifully arched from the base of the upper colonade on the one side to the base of the same on the other side. Just back of this dome is suspended a maroon curtain, or veil, which separates the main chamber from the *sanctum sanctorum*, or inner chamber, into which you are seldom allowed to enter. The floor is nicely carpeted with crimson carpet, which blends perfectly with the walls and dome, and shows the exquisite taste of the architect.

This chamber is also provided with an infinite number of springs, called mucous glands, which continually lubricate the walls, that there may be no friction between them and the colonades. It is also furnished with two great water reservoirs which discharge themselves into the chamber from the stand-pipe on each side through the ducts of Steno. These, together with the artesian wells in the lowgrounds, which are provided with Wharton's ducts and nozzles, are for inundating any dry mass of cake or food which may be thrust into the cavity.

All these things are presided over by King Tongue, who is the supreme and sole governor of the house. Disturb him much and he becomes very noisy, and is capable of doing great things. Let the least thing intrude itself into this chamber, even so small a thing as a hair, and he kicks up a terrible rumpus, and sometimes tries to turn the whole house wrong side out. Or if the least thing gets out of order in any part of this chamber, or on any column, the tongue finds it out and examines it, and rubs it most continually. Such is the oral cavity, or clinic-room, in which we perform our oral surgery.

It is with some degree of pride that I state to you that the necessity for oral surgery proper is not so great in North Carolina as in some other places. We have in our borders few large towns or cities as centers of human cosmopolitan aggregation. Most of our population is distributed in the rural districts and small towns and villages, which are comparatively free from the leprous conditions of most large cities.

In such places foreigners are huddled together in dens of vice and leprous hovels, and bring forth their offspring laden with diseases of the most loathsome character even from their earliest existence. To the glory of the great Creator be it said, health is the law, and it is the most catching thing in our economy. You take children born of weakly and diseased parents and subject them to sanitary laws, with proper food and exercise, and a very large percentage of them, by the kindness of nature, will overcome heredity and will develop into stout, healthy persons.

Hence, in a salubrious climate like ours, with pure water springing out of every hill-side, and with such abundance of cereal foods, and of such variety as North Carolina supplies, and with almost wholly a native population, it is a matter of great gratulation that we have a healthy people, compartively free from the sarcomatous diatheses and lupus conditions that prevail in most of the large cities.

Hence it is that no great stars in oral surgery have arisen in our ranks. I yield the palm to no one as to the ability of North Carolina dentists. We have as fine operators as any State can boast of; in bridge-work we have men who stand in the first ranks; and so in all departments of dentistry where necessity has called us. We have scores of men who, were they called to a hospital practise in oral surgery would not be a whit behind the most brilliant comet that has ever shot across the sky.

In oral surgery we do not need reckless adventurers, but conservative, level-headed, horse-sensed men like "Tar-heels" generally are. Many operations that are performed by our dentists go unheralded to the world because we are modest and unassuming men, whereas we have only to pick up our journals to see operations of less importance emblazoned before the world in cuts and diagrams and described in all the ostentation of technical terms which the latest dictionaries will afford.

Gentlemen, I shall not harrow up your feelings, nor ruffle your spirits, nor shake your nervous systems by telling you how to lance a "gumbile."

C. A. Rominger.

Dr. J. W. Foreman was detained at home on account of sickness of himself and family, but sent a valuable paper on "Riggs' Disease," which was read by Dr. Rominger.

RIGGS' DISEASE.

THE IMPORTANCE OF ITS EARLY DIAGNOSIS AND TREATMENT.

The condition found in the mouth characterized by the partial or complete destruction of a segment of the *alveolus* of a tooth, with the gum retaining its original outline or thickened and tumified from chronic inflammation, is of such frequent occurrence and so destructive of the usefulness of the teeth that it should have a place in the very front rank of the pathological conditions which we, as dentists, are called upon to combat. But my observation leads me to believe it is, in fact, the most neglected, and forces me to think that a large number of otherwise competent practitioners fail to detect this trouble while it is in a stage where most can be hoped for from treatment; or they are still holding to the idea that it is useless to try to do anything for it, considering the forceps the only remedy. In either case they are committing a grave error, in

my opinion. What would be thought of a dentist who should decline to fill a tooth because it might, sometime in the future, have to be refilled, and finally, perhaps, extracted? Yet, this is the kind of argument urged against any attempt to treat this condilion called Riggs' Disease.

We are seriously neglectful, shall I say criminally neglectful, of our duty to those who place themselves in our care, believing us competent and trustworthy, if we fail to detect this disease in time and do what may be done to stay its ravages. And I am convinced, if it is taken in time, it is as amenable to treatment as *caries* of the teeth.

I make no claim to any special skill or knowledge in this disease. I am not an expert in this or anything else. I claim there is enough common information on this subject, if we will but exert ourselves to get it and apply it, to enable any one of us to save hundreds of teeth for years of usefulness that are now prematurely lost.

I know nothing of the ætiology of the disease, nor do I know even its correct name. I have called it Riggs' Disease because all the other names given it seem to me either indefinite or misleading, and have all been proposed since the trouble became known as Riggs' Disease. The most popular of these names, Pyorrhœa Alveolaris, is both indefinite and misleading, because any other flow of pus from the *alveolus* might as properly be so called, and because in this disease there is very often in its early stages no flow of pus. If there is any pus at all present it is in such small quantity that hard pressure on the gum will not bring it to view. Thus, if we depend upon this symptom, which is made most prominent by the name, for our diagnosis, we will fail to arrive at one, in a large per cent. of the cases, before it is too late to get the best results from treatment. Gomphiasis is the latest name I have seen proposed, meaning a disease of the mouth in which the teeth loosen and drop out.

The latest contribution I have seen of original research into the cause and treatment of the disease is from Dencer Whittles, L. D. S., R. C. S., of England. He claims to have found the probable cause in a particular bacterium, and a cure for it in the green Iodid of Mercury.

But as we are discussing the trouble from a clinical standpoint, we are less concerned with the name or cause than with an early diagnosis. Its manifestations are so numerous and varied that I know of but one reasonably certain means of detecting it before it is dangerously far advanced That means is the use of the probe. Make it a rule, wherever there is any abnormal appearance about the gums, to try if a fine probe (Donaldson's Canal Cleansers, No. 4, with barbs cut off) will go up between the root and gum. If it will go any distance, especially if on only one side of the tooth, and you can exclude the *sinus* of a dental abscess, the safe presumption is that you have Riggs' Disease to deal with; and if you find several teeth in this condition this presumption becomes a certainty. There is no other disease known to me that will destroy the bony socket of the teeth in this way, leaving the gums standing at about

their original level; and I know of no way except by the use of the probe by which this disease can be detected in its early stages.

Treatment in my hands means simply to remove all deposits from the roots of the teeth, and apply some stimulating antiseptic to the pockets. The first is difficult in proportion to the extent the disease has advanced. In this fact more than any other, or all others, is found the importance of an early detection of the disease, for unless *all* the deposit is removed it is useless to expect a great or lasting benefit from treatment. If the disease is permitted to progress till the teeth begin to get loose, you not only have this infirm condition of the teeth to contend with, which is sometimes a serious matter in itself, but in the multirooted teeth it becomes almost, if not quite, impossible to remove all the deposit.

The instruments devised for removing this deposit, that I have seen, are unsuitable in size, shape and angles. I find it impossible to get high up on the majority of the roots with any of them I have used. Excavators, chisel-shaped, beveled on sides as well as end of points, and points bent at an angle of about forty-five (45) degrees (Nos. 73 to 81, S. S. W.'s long handle), and the same shape points bent twice, so as to make a double-bend hoe (Nos. 91 to 97), serve me better than anything I have yet tried. The shape of the instruments is perhaps of no great moment, so you can do the work with them. I recognize the fact that what one may use satisfactorily might be entirely worthless to another, but I do not think it possible for any one to reach the upper third of the palatal root of a molar with a straight chisel one-sixteenth of an inch wide. I have seen it tried, however, and the tooth pronounced not bad off, when an instrument, a small double-bend hoe, could be hooked over the apex of the root. For the upper third of the roots the hoes should have the blade reduced at least one-half in length.

After removing all deposits possible at the first sitting, mop out the pockets thoroughly with some stimulating antiseptic (I prefer Tincture of Iodine), then wait a week or ten days for the parts to recover from the operation. At the next sitting, if the gums are still loose, permitting an instrument to pass up, or there is any pus found, it is proof that all the deposit has not been removed, and the treatment must be repeated, with a like interval of rest. This is to be done again and again, so long as any evidence of the disease remains, but never oftener than once a week.

When the patient is dismissed, instruct him that he must not expect immunity from this disease in the future any more than from decay of the teeth, unless he does his part, that is, keeps his mouth as nearly absolutely clean as his most conscientious efforts will produce, and regularly consults some good dentist at least once a year. Be sure to see that he knows *how* to clean his teeth, for the vast majority do not know how, have no idea what is required, nor how to go about it.

I plead for an early recognition of this disease, and a thorough and

persistent treatment, while the conditions are such that the greatest benefit may be hoped for from treatment. Use your probe whenever there is the slightest indication of lack of tone in the gums, whether there is any tartar visible or not, especially about the palatal surfaces of the incisors and molars, and look closely that no suspicious cases escape you, and you will be surprised how often you will find this disease. Treat faithfully, and you will be both surprised and gratified at the results.

Respectfully submitted,

J. W. FOREMAN.

The Society adjourned to meet at 8:30 P. M.

SECOND DAY—NIGHT SESSION.

Pursuant to adjournment, the Society was called to order by the President.

Dr. Wyche opened the discussion on Dr. Foreman's paper, recommending the excavator as being superior to the scaler.

Dr. Jones thinks the paper one of the most important that could engage the attention of the Society. Some hold that Riggs' Disease cannot be permanently cured, but he thinks it can. At any rate, it can be very much improved. He gave an instance of a lady coming from the West who had the worst case he ever saw. He used the excavators with her and thoroughly cleaned her teeth. If they cannot be cured permanently, they can be kept for years.

The subject was discussed by Drs. E. J. Tucker, F. S. Harris, D. E. Everitt, J. C. Osborne, A. C. Liverman, I. N. Carr and J. M. Parker.

Dr. I. N. Carr reported a case of an encysted permanent canine of ten years' standing, in which there had been a fistulous abscess for all this time. Various treatments had been pursued, without any benefit. The case was entirely relieved in two weeks after the operation—removing the tooth.

Dr. A. C. Liverman reported a case of removing a considerable piece of necrosed bone with the temporary anterior teeth. The permanent teeth erupted after six years.

Dr. D. E. Everitt reported a case of abscess and necrosis from deciduous teeth, in which all the germs of the permanent teeth were removed with the necrosed bone.

The following paper, prepared by Dr. Benton, was then read:

SAFEGUARDS IN THE EMPLOYMENT OF GENERAL ANÆSTHETICS.

To venture upon the administration of an anæsthetic is irrational, unless familiar with all the known methods of resuscitation in case an accident should occur, and it is essential that there should be within easy reach, and ready for immediate use, such drugs and appliances as might be required in any emergency. Near at hand should be two hypodermic syringes, one charged with Digitalis and the other with Strychnine, and a tongue forcep, or *tenaculum*. All the necessary precautions are invariably taken in hospitals; the physician in his private practise in a measure provides for an emergency, but the dentist, as a rule, is content to equip himself with a little whiskey or ammonia, the efficiency of which is doubtful.

In case of anæsthetic cardiac failure, hot applications to the *præcordium* will be found to be one of the best and most rapid heart stimulants; being effectual in many cases when there would be want of time for any drug to produce its effect, even if administered hypodermically; hence it is important, especially in chloroform anæsthesia, to have boiling water in readiness, so that applications of very hot wet towels may be made if the necessity should demand it.

Previous to the administration of an anæsthetic for any purpose, even if the effect of the agent is wanted only for a moment, nothing can be of more vital importance than taking all these precautionary measures. The accidents that have occurred show that the stage of greatest danger is early in the administration, and deaths have been reported as resulting from the use of anæsthetics so suddenly that there was scarcely time to apply a restorative. Sylvester's method of producing artificial respiration is perhaps best suited to the cases we are likely to meet requiring resuscitation, and any person who has not actually seen artificial respiration practised should ask some friend who is thoroughly familiar with the technique to demonstrate it to him practically upon his own person; never will the knowledge so gained be forgotten, and it may be the means

of saving life. In writing of asphyxia, Professor Hare, of Philadelphia, says: "If electricity is used it should be employed solely as a peripheral irritant, with the object of arousing the patient as would a dash of cold water. The current should be that which is slowly interrupted and which will alternately contract and relax the diaphragm." While nitrous oxide gas is recognized by both the medical and dental professions as being the safest general anæsthetic, safer in fact than cocaine, extreme caution is necessary in its use, and especially under such conditions as would preclude the employment of chloroform or ether. In every instance all possible scientific precautions should be taken, and even in cases where these have been provided, deaths have occurred from the use of anæsthetics, and a large proportion of these accidents have happened in the hands of some of our most eminent and skillful surgeons. Hypertrophy, fatty degeneration and valvular obstruction of the heart, plethora, temporary systemic depression, as in the overfatigue and permanent systemic depression, as in the drunkard, may be named as some of the conditions contra-indicating the administration of anæsthetics.

A full dose of Digitalis, given hypodermically before the administration of an anæsthetic agent, would greatly lessen the danger of cardiac collapse, in case of a weak heart.

Strychnine is to be the most relied upon, the injection of which is usually followed by a gradual rise of arterial pressure, and always by an immediate and extraordinary increase of the rate and depth of the respirations. It is essential, however, to give it in large doses; in a robust adult with serious heart or respiratory failure, 1-20 grain of the alkaloid may be given hypodermically. The most remarkable results have been obtained in bringing about recovery from asphyxia following anæsthetization through the use of artificial respiration. Cases in which no respiratory movement had been noticed, and no flow of blood had occurred in the carotid artery, that is, the heart had practically ceased to beat for two minutes or more, rapid and permanent restoration was the result of artificial respiration actively and persistently practised. And no doubt in many cases of death from anæsthesia the fatal result might have been avoided by the active use of this method of reviving the patient, the difficulty and failure of which is often due to its inefficient practise.

In all cases a table or chair should be used, which is so constructed that upon the appearance of an unkind symptom, any failure of the heart's action, the body could be laid at an angle of forty-five degrees, with the head downward, so as to favor the passage of arterialized blood to the brain.

J. H. BENTON, M. D., D. D. S.,
Newbern, N. C.

The subject is passed.

Dr. Keerans read the report of the Committee to revise the Constitution and By-Laws of the Society.

The subject is thoroughly discussed.

Drs. Griffith, Keerans and I. N. Carr were appointed a Committee to meet and revise the Constitution and By-Laws, and present them before the Society at its next annual meeting.

Dr. Liverman made a motion that the Society defray any necessary expense incurred by this committee in carrying out the revision of the Constitution and By-Laws. Carried.

Dr. Keerans made a motion that the Society instruct the Secretary to furnish a copy of all the changes made in the Constitution and By-Laws that are on record for the past ten years to the committee, the same to be furnished within a reasonable length of time.

Adjourned to meet at 9 o'clock a. m.

THIRD DAY—Morning Session.

Pursuant to adjournment, the Society was called to order at 9 a. m. by the President.

The special order, the election of officers for the ensuing year, resulted as follows:

President—Dr. A. C. Liverman, of Scotland Neck.
First Vice-President—Dr. E. J. Tucker, of Roxboro.
Second Vice-President—Dr. W. B. Ramsey, of Hickory.
Secretary—Dr. J. S. Spurgeon, of Hillsboro.
Essayist—Dr. F. S. Harris, of Henderson.

Drs. T. M. Hunter and S. P. Hilliard were elected to succeed themselves on the Examining Board, their terms having expired.

The following gentlemen were elected as delegates to the National Dental Association: Drs. C. A. Rominger, C. W.

Banner, F. S. Harris, H. D. Harper, A. C. Liverman, E. J. Tucker, W. B. Ramsey, J. B. Little and S. P. Hilliard.

Greensboro was selected as the next place of meeting, on Wednesday after the first Monday in May, 1900.

Dr. J. A. Chapple extended to the entire Society a very cordial invitation to attend the Georgia State meeting, which convenes in Atlanta in June.

Dr. Griffith read his report of his attendance at the National Dental Association at Omaha, and related many of the pleasant and amusing incidents of his entertainment while there.

Dr. C. L. Alexander spoke on crown and bridge-work, exhibiting drawings and models; first, a plan of making a porcelain crown for a molar. He showed his plans of making crowns so as to attach the porcelain to the pin without soldering. Also, a plan of adjusting Logan crowns, using metallic disks to protect the root.

He showed a cast filling for restoring a central incisor, both the proximal surface and cutting edge, without devitalizing the nerve.

He showed a molar, restoring the whole grinding surface by the same process. He has abandoned the method of banding roots for crowns, but uses posts.

The Society tendered Dr. Alexander a vote of thanks for his valuable clinic.

On motion, the Society adjourned for fifteen seconds, to be recalled and vote on the election of Dr. Chas. R. Turner.

Dr. Chas. R. Turner is unanimously elected to full membership of the Society.

Dr. Griffith read a paper prepared by Dr. E. L. Hunter, under the head of Prophylaxis, as follows:

PROPHYLAXIS.

The prevention of decay in the teeth, as we see it, *i. e.*, as we have to treat it, is about well known to you all. When, years ago, we knew nothing about bacteria, we called bichloride of mercury, carbolic acid, etc., disinfectants. Now we call them germicides, but they did the same thing then as now. The prevention of decay lies in a course of treatment unsought by men and, until man is very much nearer the angels, unseekable. To resist there must be strength, and until we have gone back to one of the first laws of nature, the survival of the fittest, there will be retrograde, and not forward movement, in all the organs of mankind.

The moral and physical forces lie parallel. You cannot mix good and evil and get good as a result. No more can you marry the tainted to the untainted and get an untainted progeny. We do not look for such things in our cows, horses or dogs. So, being sound yourselves, marry sound women.

Therein lies the true prophylaxis of dentistry. E. L. HUNTER.

The subject was passed.

On motion of Dr. Turner, a vote of thanks was tendered Dr. Hinman and Dr. Cowarden, the two visiting dentists, for their efficient aid in their clinics to the Society.

The Society agreed to pay $30 for the services of the stenographer in writing up the proceedings of the meeting.

A fee of $25 was allowed the Publishing Committee, including the Committee that did the work for last year.

Dr. Everitt moved that a contribution of $10 be allowed the janitor for his services during the session of the Society. Motion was carried.

It was moved and carried that the same Committee on United States Army Dentists, appointed a year ago, be continued, and requested to render every service possible in securing the appointment of dentists in the army and navy.

REPORT OF DR. V. E. TURNER, SUPERVISOR OF CLINICS.

DR. THOS. P. HINMAN, OF ATLANTA, GA.

Exhibited models and explained his method of treating irregularities, using silk ligatures and accomplishing most satisfactory results in a remarkably short time.

Also, exhibited several models waxed up for investments, and illustrated his plan of polishing the wax so that when the case comes from the vulcanizer the cast only requires the brush wheel to complete the case.

Demonstrated the Jenkins system of porcelain inlay, placing one in the labial surface of a central incisor, securing the impression of the cavity with rolled gold No. 20, pressing it in with cotton and forcing it in with the thumb, then mixing and baking the porcelain, and finally cementing it in place. During this clinic he exhibited many beautiful specimens of this artistic work.

He demonstrated his method of treating Pyorrhœa Alveolaris by removing all deposits and applying lactic acid, and exhibited his instruments for the treatment of such cases.

DR. L. M. COWARDEN, OF THE FACULTY OF THE DENTAL DEPARTMENT OF THE UNIVERSITY COLLEGE OF MEDICINE OF RICHMOND, VA.

Demonstrated his method of treating putrescent canals with sulphuric acid for immediate filling, and exhibited his plan for drying out roots with compressed air and filling with gutta-percha cones. He gave a most entertaining and instructive exhibition of dental histology with a powerful microscope.

DR. E. J. TUCKER, OF ROXBORO, N. C.

Exhibited a number of crown and bridge-work models, showing a unique method of making abutments for bicuspids and cuspids, using a window-face crown.

Demonstrated a method of getting up metal dies, by the use of cuttle-fish bone, and explained an original method of replacing broken porcelain facings without removing the bridge by drilling holes through the porcelain to correspond with the pins left in the backing and securing it in position with cement.

Made a contour filling in the approximal surface of a central incisor, using Perry's new separator, and finishing it in a most artistic manner.

DR. J. E. WYCHE, OF GREENSBORO, N. C.

Demonstrated the method of using the How post in extracting difficult roots.

DR. I. N. CARR, OF DURHAM, N. C.

Demonstrated the power of psychic suggestion to prevent pain in extracting teeth. The subject had several badly decayed teeth and roots removed without feeling any pain during the operation. As far as could be ascertained, this seemed to have been a successful effort to utilize psychic suggestion to prevent pain. V. E. Turner.

Dr. Everitt moved that the Board of Examiners furnish the Secretary with the names of such persons as are violating the law, and that he call the attention of the Solicitors to these violations, and that such funds as may be necessary for the successful prosecution of these various offenders be furnished by the Society for such prosecution.

Motion was carried.

The officers were then installed for the ensuing year, and the President appointed the following Committees:

Publishing—Dr. J. Martin Fleming, Chairman; Dr. E. K. Wright and Dr. J. M. Parker.

Executive—Drs. D. E. Everitt, Chairman; N. G. Carroll and C. W. Banner.

Supervisor of Clinics—Dr. J. E. Wyche.

On motion, the Society adjourned to meet in Greensboro, May the 9th, 1900.

C. W. Banner, *President.*
J. S. Spurgeon, *Secretary.*

LIST OF MEMBERS.

Alexander, C. L.
Ayer, J. M.
Baldwin, A. M.
Ballentine, J. A.
Banner, C. W.
Banner, J. E.
Battle, J. J.
Benton, J. H.
Betts, J. S
Bland, M. A.
Bland, C. A.
Boyette, Frank
Boyette, C. S.
Brooks, S. O.
Carr, I. N.
Carr, R. L.
Carroll, N. G.
Conrad, W. J.
Cole, R. S.
Culbreth, N. M.
Crawford, E. A.
Davis, I. H.
Davis, W. Ross
Durham, J. H.
Dreher, A. H.
Everitt, D. E.
Edwards, W. H.
Fleming, J. M.
Foreman, J. W.
Fox, L. S.
Frazier, A. E.
Frazier, F. C.
Goodwin, J. C.
Goldberg, E. H.
Gorman, J. A.
Griffith, J. F.
Hall, C. B.
Harper, H. D.
Harris, F. S.
Hawes, C. T.
Henderson, L. B.
Herndon, W. T.
Herring, H. C.
Hilliard, S. P.
Horton, H. V.
Horton, P. E.
Hunter, E. L.
Hunter, T. M.
Hurdle, J. S.
James, D. L.
Jeter, I. P.
Jones, R. H.
Keerans, E. P.
Kluttz, S. B.
Little, J. B.
Liverman, A. C.
Livingston, C. D.
Lynch, William
McCracken, F. W.
McCracken, J. T.
Matthews, J. E.
Moose, J. K.
Morrow, R. M.
Osborne, J. C.
Osborne, J. R.
Parker, J. M.
Patterson, G. B.
Pitts, H. C.
Pringle, H. J.
Ramsey, J. F.
Ramsey, R. L.
Ramsey, W. B.
Ritey, J. M.
Rominger, C. A.
Ross, T. T.
Smathers, B. F.
Smithwick, D. T.
Snell, H.
Spurgeon, J. S.
Thompson, C. A.
Tucker, E. J.
Turner, Chas. R.
Turner, V. E.
Watkins, C. J.
White, J. H.
White, L.
Whitehead, C. A.
Whitsett, G. W.
Wright, E. K.
Wyche, J. E.